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**The Business of Teaching the
Teaching of Business**

*Using social constructivist
techniques to teach business-
orientated Advanced GNVQs*

Doctor of Education (EdD)

January 2001

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Abstract

Vygotsky's social constructivist theory suggests that the culture of a situation helps develop cognitive structures. Therefore it follows that a business 'culture' is needed to teach business orientated GNVQs. The perceived need was to develop such a culture and within it to construct teaching strategies that would help students take more responsibility for their own learning.

Management theory and empirical research were used to validate a 'Business culture' and a Kolb type learning styles approach, involving cognitive constructionalist theories was used to develop cyclical teaching and learning phases. The methodology has involved the observation of student use of the culture, surveying the students' and staffs' opinions as well as analysis of their own reflections on strengths and weaknesses and how this relates to performance.

The research took place over three years and involved sixth form students taking GNVQ Advanced Business and GNVQ Advanced Leisure and Tourism.

Results showed some success in bridging social and cognitive constructions approaches with the use of learning styles as cognitive tools. The model of delivery developed shows potential in application to other vocationally orientated courses. The observation showed that students could be encouraged to see their 'school' work in a 'business-like' way and behave accordingly.

CHAPTER ONE

The teaching of GNVQs and the perceived need

A universal problem facing all teachers is how to deliver any particular course or subject as effectively and honestly as possible. Many of the philosophical problems associated with what to teach have been superseded or perhaps circumvented by the prescription that has now become a feature of British education. Courses have specifications and outcomes or attainment targets and such things now determine a lot of what goes on in the classroom. However, even taking a positivist viewpoint here, the teaching in schools of vocational courses and of GNVQ courses in particular raises concerns.

This is particularly so as GNVQs are part of the ongoing political drive to raise the quality of the British workforce. This politico-economic drive is discussed in chapter two

Students in my institution are following the Advanced level 'business-orientated' GNVQs: 'Business' and 'Leisure and Tourism'. The tensions associated with a course designed to produce workers of the 21st Century such as this have led me to look closely at my own course management, teaching and assessing.

As the literature review in chapter two will show, from its genesis in the White paper Education and Training for the Twenty-first Century (Dfe/ED/WO, 1991) the General National Vocational Qualification (GNVQ) has been seen as an important development in bridging the academic/vocational divide. In doing so it has become an important factor in the creation of a modern workforce. Spours (1997) in discussing this notes that its creation can be regarded as a 'policy hybrid incorporating the influence and concerns of many stakeholders.

These stakeholders are all those with something to gain from the success of GNVQ: the Government, Employers, Agencies such as the Qualifications and Curriculum Authority (QCA) and award bodies (Edexcel, AQA etc.), Educational institutions, teachers and students themselves. It can quickly be seen that each will have a different perspective on the qualification, which itself will have many facets.

Government and employers' prime consideration is a qualification that helps address perceived 'labour force' needs, whilst the agencies charged with offering and monitoring quality will make more specific demands in outcomes, test results and evidence indicators. Then again, the institutions that deliver GNVQs require successful completion, good grades and achievement in their students, especially in these times of league tables and Ofsted inspections. Equally, teachers and assessors will look on GNVQs from a classroom management and pedagogic viewpoint and the students themselves will look at the courses in terms of their own potential achievement and career ambitions.

The White Paper 'Education and Training for the Twenty First Century' (Dfe/ED/WO, 1991) offered five points that identified their concept of 'quality' GNVQs. They were:

- A broad preparation for employment...
- (be) an accepted route to....to higher education...
- Be of equal standing to academic qualifications...
- Be clearly related to occupational specific NVQs...
- Be suitable for use by full time students in colleges and, if appropriate in schools.

These points, focusing as they do on preparation for employment do not readily suggest that individual cognitive development is of value. But even commentators on the new economic order do not all suggest this. As will be

seen from the discussion of the literature, one key aspect of the GNVQ is to create multi-skilled, adaptable workers prepared to bring their intelligence to work as well as their bodies. Toyota, the architect of the Toyota car company described this as finding 'the gold in the workers' heads' (Murray, 1989). These workers are variously defined as 'Autonomous learners for a changing world' (McNair, 1995) and 'reflexive workers' or more cynically as 'self sufficient nomads with no ties' (Hart, 1992) or as part of a 'career resilient workforce' (Waterman, et al. 1994).

Thus, within the prevailing economic discourse, developing business orientated or perhaps enterprise driven students who are competent in; able to perform at; or 'can do', offers more than specifying and attaining aspects of content in a qualification. This led me to consider the possibility of creating 'business-like' courses, not just in the sense of content but in a broader way, developing a culture or mindset that would encourage business-like approaches and at the same time develop or helping to develop the student's individual cognitive ability. This immediately threw up problems from as complex as 'how to construct such a course?' to as apparently simple as 'what is business-like?'

As I was in charge of a newly developing vocational department in a brand new sixth form college, it seemed sensible and appropriate to tackle this perceived need using an action research approach. This would allow development over a period of years and produce results that would be relevant to the teaching and course organisation. The structure of this dissertation will follow the narrative of the development as different things were discovered, developed and sometimes rejected at different times in the research. Further discussion on the nature of the action research and structuring will be dealt with in chapter three but it is important to note here that the research was, what Elliot (1991) describes as, 'Closed AR' as it was designed to use theories already propounded by educationalists such as Vygotsky (1978) and Kolb (1984).

The line of research that became clear to me, and I hope will be evident from the literature review, was that central to the provision of success in GNVQ for all of the stakeholders was an application of the theory of ‘social constructivism’ (Vygotsky, 1978) and the thread of ‘experiential learning’ (Kolb, 1984) that grew from it.

The grasping of the concepts of the GNVQ; the development of higher skills, including the interpersonal skills identified as so important today, and improvement of cognition are, I believe, socially and indeed culturally contextual. The challenge then was to create a learning and assessment environment that would nurture the students while at the same time providing opportunities for individual development.

A review of the literature suggested that making students aware of their own developmental potential was a key aspect of this as it encouraged student self awareness, self assessment, reflection and acceptance of responsibility for; and involvement in; their own development.

Creating a practical situation to deliver teaching and learning in this form developed into the following research questions.

(Each will be given a simple title to facilitate easier cross-referencing)

1. Business Environment

How best to create this ‘culture’. Specifically, how to encourage students to see what they do as being relevant to their own future employment in shaping the way they react to the ‘practice’ ‘attitudes’ and the ‘environment’ they will encounter in Business and Leisure and Tourist workplaces. This will entail creating a more ‘business-like’ culture to work within. The idea of culture has been divided into the ‘micro-’ and ‘macro-’ culture (appendix 1)

2. *Content*

The content of the learning and assessment programmes. The outcomes and content to be delivered is defined by specifications but I felt it was important to find general ways of approaching content delivery. This was partly due to the fact that ongoing changes to the structure and content of GNVQ meant that whatever was developed needed to retain a large element of flexibility.

3. *Cognitive Development*

The structuring of the learning and assessment programmes. Here, the greatest challenge would be to 'empower' the students by making them aware of their own strengths and weaknesses in learning and equipping them with strategies for utilizing their strengths and improving on their weaknesses. This would also relate to the next point.

4. *Teacher's role*

The role of the teacher/assessor in managing the classroom experience. What would be the role of the teacher in offering interventions and providing feedback?

5. *Staff Development*

The necessary level and nature of staff development. This aspect relates to implementation. In the long term any real benefits uncovered by action research into this area would only be of any use if they could be sustained. Even at this early stage, I recognised the possibility that, as Schon (1985) points out in his discussions on real and theoretical problems, some 'rigour' may be lost in the face of 'relevance'. Teachers would need to be supplied with straightforward frameworks and prompts. The creation, efficacy, use and validity of these frameworks and prompts would be an ongoing theme during the research.

6. *Student Awareness*

The necessary level of student awareness. Trying to develop a culture in which students took at least some responsibility for their own learning and development suggested that the students would need tools to understand their potential and problems. As the literature research will show, the proposed answer to this was found in the concept of learning styles propounded by (Kolb, 1985) in his work on Experiential Learning.

7. *Evaluating success*

How to evaluate the success of the research? In one sense, acceptance of an outcomes model suggests that success criteria are already there in the form of successful completion of the GNVQ evidence indicators, grading criteria and key skills competence. However, the desire to see that all stakeholders, and that includes the student, are satisfied meant that a range of evaluation criteria would be necessary. These eventually included the following range of illuminative aspects:

- Students' performance and achievement in grades, key skills and evidence completion.
- Students' attitudes to their own learning and performance and especially their ability to assess their own development.
- Student's performance outside college; in work environments; and attitudes to self-development.
- The quality and effect of the environment created in the GNVQ centre and the student's and other's reaction to it.
- The practicalities of the approaches developed and their use by other staff.

It is necessary here; to say a little about the approach to the 'culture' for teaching that appears as both culture and environment in the later discussion. I recognised early on that there was a significant difference

between the ‘culture’ of the classroom or department that I could create and sustain and the ‘culture’ of the institution and for that matter the ‘culture’ created by the wider requirements of stakeholders in education, parents, award bodies, employers, the government etc. For this reason I conceptualized these cultures as the Micro-culture of the GNVQ department and the Macro-culture of the school and beyond. The boundaries of these are identified along with indications of their agendas in Figure 1.1 and with a slightly fuller description in appendix 1. Whilst not a perfect representation it does have some support in the work of Esland in the Open University study guide for Educational, Training and Employment (OU E817, 1991) and in the work of (Dahloff, 1991). Dahloff’s approach is interesting as his thrust is to evaluate teaching but in pursuing this goal he comes to terms with the fact that ‘often teachers and learners are subject to decisions taken at higher levels’ (p130). He describes the situation as containing ‘frame factors’, a term which equates well to the structures I have conceptualized.

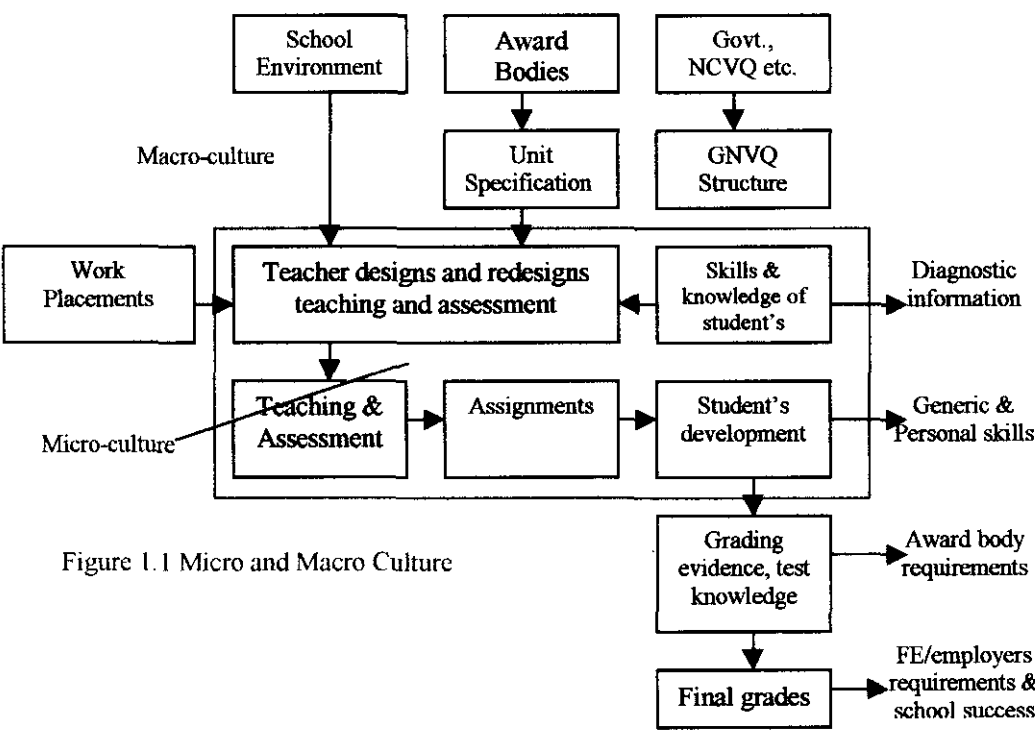


Figure 1.1 Micro and Macro Culture

The context within which the research was to take place

The institution where the research took place is an 11-18 comprehensive school situated in southeast Essex. The school has a history of forward looking initiatives, being one of the first to embrace the self management of Grant Maintained status in the early 1990s and one of a few in the area to be granted a sixth form in 1994. In terms of the socio-economic profile, the Performance and Assessment report (PANDA, appendix 2) and year on year experience describes a school that draws from a wide 'catchment' area of over 20 diverse primary schools covering 20 or more square kilometers. The area ranges from relatively poor housing and income to exceptionally well-heeled self-made business people. A large proportion of the students come from homes where parents both work and many commute to London which is only 40 minutes away.

The school has been very successful over the last decade or so under the Headteacher who was appointed when the school was on a dramatically falling roll. In 1983 the school roll was 1,000 predicted to drop to under 700, the main reason being the fierce competition between this school and two others for the equivalent of two 'schools-worth' of students. Had the decline continued the school would almost certainly have been closed but general improvements in the quality of management and teaching (as evidenced by three inspections) has led to the school now being regarded as one of the best in the area with a student population approaching 2,000. GCSE results have risen steadily from 24% to approaching 60% good GCSE grades and A level and GNVQ results are also very good. A copy of the school's recent exam grades is included (appendix 3).

The school's bid for a sixth form, which included a new building, was granted partly due to a clear commitment to develop GNVQ courses. I was charged with this development but it was decided to start in 1994 with A level courses first. In 1995 the first GNVQs in Business, Leisure and

Tourism, Art and Design and Health and Social Care began. They were introduced at Advanced level only and like most of the classes that year contained few students. Over the next few years the courses, staffing and organisation developed. By 1996, when my research began the courses were well established and the internal quality assurance and management systems associated with vocational courses were in place. Included in appendix 4 is a pie chart compiled by the Essex Careers and Business partnership (1999) showing percentages of students taking up Advanced GNVQs and other courses. The number of King John students staying on to do Advanced GNVQ is usually around 16% of those staying on in the sixth form and approximately 6-8% of the whole of year 11.

The bulk of teaching GNVQ was carried out in a large area known now as the GNVQ centre. I had had input into the design of the new building so the general layout and ideas were mine. The GNVQ centre consisted of a large teaching area, generally open plan but steadily over the years and with the benefit of experience, divided by furniture, filing cabinets and similar items into five or six distinct areas of varying size. Around the walls are 18 networked computers, several printers and a scanner. The room is also equipped with an external telephone line, whiteboards, notice boards and a sink unit. Next door is another suite of 20 computers arranged for IT teaching and several other 'satellite' rooms are available some with computers as well.

As can be seen from the photograph (Figure 1.2) taken in April 2000 the room is generally nice to work in, with a pleasant atmosphere and is well equipped. Like all teaching nirvanas it does have its drawbacks. Up to six groups can be working at any one time and the environmental controls do not always seem to maintain a pleasant ambient temperature, hence standalone fans and damaged blinds where windows have been left open too wide. Being on the extreme end of the school also means that staff often arrive late from the other end of the school (a full .25 mile away). It also

affects some aspects of resourcing and technician availability. Phoning over to the main school is a common activity.

The sixth form, along with most in the country, suffers also from being full of sixth-formers! The demands of puberty, part time work and the age-old adolescent problem of coming to terms with more freedom create some problems with attendance and attitude, though nothing particularly serious.

I decided in 1997, to target two main groups for the research I was about to undertake. These were to be students from Business group and Leisure and Tourism group. Over the four years of data collection and development this was to encompass two groups a year, one upper and one lower sixth over at least two elements of work per year. (The organisation of the GNVQ into units and elements is discussed in later.) Altogether teaching and learning data was collected, on various aspects of the research from approximately 10 elements.

Thus, the research to find out more about the business of teaching the teaching of business began in earnest in 1997 and was to draw on three separate years of GNVQ experience in delivering Business and Leisure and Tourism Advanced courses.

Figure 1.2

A view over towards the Leisure and Tourism work area. Several of the students and staff pictured here contributed to the research project



CHAPTER TWO

Literature Review

The aim of trying to create a GNVQ structure that would both produce business-orientated students to satisfy many of the stakeholders and that would help students develop cognitively into independent, self-aware learners required me to look into several distinct areas of literature.

The first area was that of the GNVQ itself. As a qualification, I had no intention of problematising it, however, I did need to make myself fully aware of the intricacies of its nature, to facilitate effective development of both course and student. As the GNVQ was bound up tightly in the politico-economic events of the last few decades, and reflected some of governments' response, it seemed sensible to deal with both of these together. This hopefully would clarify the roll GNVQ was expected to play in the development of individuals in tomorrow's economy and identify the demands and constraints of, what is variously described by writers quoted in chapter two, as outcome-based or competency based education and training (CBET) on student development.

The second area of literature review was in the field of social constructivist and cognitive psychology and the links and threads between them. In this area I hoped to find ideas and approaches for developing student's abilities.

The third area involved identifying what was meant by a business culture or business environment and for this I consulted literature on organisational development, business management and motivational theory. This is less exhaustive than some other sections. There were two reasons for this. The first was that this research came later on in the chronology of the project, upon the realisation that the research was running into problems because of

a lack of a clear articulation of business culture; the second, was that this was a huge literature field and I therefore had to sample judiciously rather than attempt a comprehensive review.

The last area reviewed was that of Action Research (AR) itself. The classic approach to AR, involving loops of reflective research was not a problem, but because I had elected to use existing theories, and not to develop what is known as 'grounded' theory (OU E835 p111) through empirical work alone, there was more to consider. I thus took pains to study the literature on AR and define the methodology more closely.

Literature review and the relationship of literature to research questions

The place and development of GNVQs

The realities of Post-Fordism (appendix 5) have a significant bearing on the research as the pressures of Post-Fordism, as defined by Murray (1989), and global competition have forced the hand of western European governments into restructuring their economies. Shadowing this development, and indeed part of it, was a technological revolution that, as Wirth (1974) explained, would fire the liberal education versus vocational training debate. This in turn was a pressure for change within the educational institutions themselves as successive governments looked to them to provide solutions to both the economic needs and associated social problems fast becoming apparent, (Sherman, 1974).

A major concern here was that the debate between those that advocate vocational, in other words, a work-related curriculum and those who feel education should be aimed at developing individuals, was looked on as a chasm that divides two distinct approaches. One side required the

individual to be developed, a theme found in Human Capital Theory, (Woodhall, 1987) whilst the other demanded skills and training to benefit the country in a more direct and possibly more measurable way, (Ellis, 1995). In other contexts this debate is articulated as Liberal versus Economic Instrumentalism, (OU E817), Education versus Training (Woodhall, 1987) or Human versus Technical Rationalism, (Schon, 1985). Although emphasis is often different they form part of the same debate. Others see these not as alternatives but aspects of a more unified approach to education. (The earliest proponent of this view was, in fact, Dewey (1938) in Wirth (1974). It is an approach that considers both the individual and the economy as in the contribution of Brown and Lauder (1996), Deardon (1984) and Sharp (1996). The last makes the point that a modern technological society needs more than 'trained' workers, instead it needs a labour force equipped with both mental and manual skills. Brown and Evans (1994) in comparing the UK response to a need for a 'high skills' equilibrium with the German approach advocate a concept of developing 'key workers' who combine technical and traditional skills and broad based education. However, since the Government White Papers and documents on training (DTI, 1988 and DfE/ED/WO, 1991) there has been a steady shift towards competency based qualifications as a means of improving the skills base and therefore the competitiveness of the UK economy, at the expense of more Liberal Humanist approaches. Gleeson and Hodgkinson (1995) refer to this as Reconstructionism, where GNVQs etc. are aimed at reconstructing society in an economic sense. Recent governments have pursued a supply side response to the changing trading and production changes brought about by globalization. This is discussed at length in the Open University course 'Education, training and the future of work', (OU, ED837). The desire to turn Britain into a 'magnet economy' (Brown and Lauder, 1996) has led to a desire to up-skill the working population to make the UK more attractive to the multi-nationals companies. Although the validity of this approach is contested by Esland et al (1999) it is a major reason for the education policies currently in place.

The framework that has thus been (until recently) accepted as a basis for the development of the national training structure (including NVQs and GNVQs) for the twenty-first century is that of the Outcomes Model originally articulated by Jessup. In essence, Jessup (1995) advocated a model for National Vocational Qualifications (NVQs) and GNVQs that in his view provided ‘a mechanism for encouraging certain forms of learning while not prescribing the learning programme’ (p33). By identifying student outcomes in the form of ‘demonstration of a range of cognitive, interpersonal and practical skills as well as an understanding of the principles that govern them.’ (p33) the idea was that learning could be guided towards these economically justified outcomes and personalized so that students could move at their own rate and that forms of learning could then be decided upon by teachers and tutors on their appropriateness. Outcomes were defined in terms of *Performance Criteria* relating to what the student should be able to demonstrate and the *Range* of situations, aspects or activities that the performance should be demonstrated within.

Whilst it is not the remit of this research to discuss the NVQ aspect of occupational training it is worth noting here that the nature of this framework has been reviewed by Beaumont (1996) and is undergoing significant changes.

The creation of the General National Vocational Qualification (GNVQ) was an attempt to create a third track, a bridge across the chasm that divided Liberal and Vocational education. It was seen as a way of encouraging all abilities to ‘hedge’ their career bets, by being offered work-related qualifications that by eighteen would allow students the opportunity to continue into Higher Education or employment. This concept would, it was believed, help to raise education levels generally, as targeted by the government’s National Training and Education Targets (NTETs) and end the ‘low skills’ equilibrium (Finegold, 1993) that has plagued British

industry. At three levels: Foundation, Intermediate and Advanced, GNVQs were offered in a range of subjects designed to give a broad based introduction and grounding in vocational areas such as Business, Leisure and Tourism, Health and Social Care and Art and Design, and in their related skills and processes.

As an example, an Advanced GNVQ was made up of *Units* (eight mandatory and four optional with the possibility of adding further optional or additional units) which were divided into *Elements*. The *Elements* were subdivided into basic competencies referred to as *Performance Criteria* that had to be demonstrated in a *range* of contexts. Assessment followed the NVQ Outcomes model in terms of coverage of Performance Criteria and range statements but with the addition of end of unit Multiple Choice Question tests (MCQs) in seven of the eight mandatory units. Alongside the vocational units were the three key skills units: Application of number, Information Technology and Communication, that were designed to be integrated into, and assessed along with, the vocational work. The other difference from the NVQ was that the GNVQ was graded across three process *themes* (Planning, Information seeking and handling, Evaluation) and a Quality of Outcomes *theme* to offer a potential Merit or Distinction based on the best third of the portfolio evidence. Optional and Additional Units offered some career orientation as well. After review and revision in 1995 (NCVQ, 1995), assessment of Performance Criteria was replaced by Element based Evidence Indicators, a move that is furthered in the reforms which will be mentioned later. (For examples of a GNVQ Advanced element and Grading themes see appendix 6.

At this point it is reasonable to take a closer look at the Outcomes model and to consider its perceived strengths and shortcomings as a model to underpin the restructuring of education and training in the UK. There are several aspects of the model that need separate consideration here, although there is a great deal of interrelationship. They are:

- The relationship of the Outcomes model to other curriculum models.
- The discourse supported by Outcomes
- Whether or not the Outcomes approach is adequate to provide the level of skills and training needed in the 'Post-Fordist world'
- How practical the model is in terms of delivery
- How valid and acceptable are the qualifications generated by an outcomes driven programme.
- Proposals for changing the model, and finally,
- The nature of teaching and learning under an Outcomes 'regime'.

The relationship of the Outcomes model to other curriculum models. As with any curriculum model, the Jessup Outcomes model has a long and interesting pedigree. In differing contexts and historical settings this model is related to several others. Each here is related to commentators or schools of thought that have linked them to the Outcomes model: Competence Based Training and Education (CBTE) in the USA by Bates (1995), The Behavioural Objectives movement, Rational Curriculum Planning Through Behavioural Objectives (RSPBO), Taylorism in Management by Bates (1995) and Jones and Moore (1995), Competencies and Criterion Referencing by Wolf (1995), Domain Referenced Objectives by Melton (1996) and Functional Analysis by Stewart and Sambrook (1995).

The discourse supported by Outcomes. Ellis (1995) and Stanton (1995) articulate the wishes of many in championing the Outcomes model as the basis for a national training framework, in part for creating a common language for qualifications but more importantly because of the promise of accountability in-built, especially in the Jessup model, which Burke (1995) and Steadman (1995) describe as an assessment model. In saying this, Burke is trying to point out that the basic building block of the GNVQ or NVQ is not a unit of instruction but a unit of assessment which he sees as offering an accountability in terms of expected achievement whilst not determining learning activities to be used in achieving those outcomes. This

view is supported by Brady (1996) in a critique of the Australian competency/outcome model. Within this article there is also a disquieting suggestion that this approach may discriminate against the more able, an aspect that is further explained by Steers (1996), Gleeson (1992) and Pring (1994) among others. The point they make is that the structure and nature of GNVQs and NVQs is born out of the class structure in the UK and is in fact a form of Tripartitism harking back to the 1944 Education Act. Gleeson and Hodkinson (1995) suggest that the GNVQ is unlikely ever to gain parity of esteem because there is an ingrained belief that there are three natural types: Academic, Technical and Practical and that these relate closely to ability. Steers (1996) explains that the last Conservative government sought to control education through intermediary bodies, determining who should be educated in what manner and Gleeson (1992) asks the question: Is this training or social conditioning? Jonathon (1987) is no less direct when she suggests that training creates a pliant social underclass. The title of one of her latest contributions to this debate 'Illusory freedoms: Liberalism, Education and the Market' Jonathon (1997) emphasizes her contentions. Gleeson and Hodkinson (1995) take up the 'desire-for-up-skilling' banner of Finegold (1993) but suggest that the GNVQ curriculum '...on one hand promises parity, progression and re-skilling (but) on the other hand offers labour: unemployment, low pay, casualization. The danger is that GNVQ becomes another substitute for unemployment or a conduit for service sector employment' (p10). Helsby et al (1998) explain it by suggesting that terms like 'multi-skilling' and 'empowerment' are used to justify deregulation and casualization, and Pring (1994) says '...whatever we do with or call GNVQ it will never be accepted by academics' (p36). The title of his article 'Innovation without Change' says much about his viewpoint. He wishes to see an end to the academic/vocational divide but sees the problem as one of discourse. For the GNVQ to be accepted means altering the 'A' Level to embrace elements of the vocational omitted from 'traditional' teaching programmes, thus altering the perception of what is to be learned. Interestingly, Holding (1996) comparing the content of GNVQs and 'A'

Levels sees no real problem in creating common core courses that diverge into GNVQ and 'A' level streams and as can be seen from the Dearing (1996) review curriculum structures to facilitate this are being put in place by September 2000, a move favoured by many commentators including Hodgkinson and Mattinson (1994).

Several other views on the Outcomes model are worth noting here: Hyland (1995) in taking a view that firmly rejects the economic instrumentalism at the root of the Outcomes model points out that current approaches constitute a values system in themselves in emphasizing enterprise and individualism. He contends that seeing moral principles as 'competencies' or 'occupational skills' will dangerously marginalize or undermine the individual's relationship and responsibility to their community and society. The second contribution comes from Psacharopoulos (1997) of the World Bank. Addressing western governments, he argues for de-linking schools and vocational education stating clearly that schools should provide a general education and that skill training should come later. His arguments are for equipping countries to face globalization by forgetting it and concentrating instead on good general education. However, whilst his discussion seems to offer a more liberal approach he is quite clear in suggesting that vocational education is an agent for social engineering.

Whether or not the Outcomes approach is adequate to provide the level of skills and training needed in the 'Post-Fordist world'. To some, the Outcomes model is seen to satisfy the requirements of the new economic order. McNair (1995) is confident in supporting the Outcomes model as creating 'a new language' that enables change to happen, helping individuals to become autonomous learners and moving towards recognizing achievement and away from 'an undue concern for process'. Stanton (1995) further extends the claims by elaborating on the quality of qualifications achieved under this model and the enhancement of accountability. Ellis (1995) maintains that students benefit from explicit

outcomes and that GNVQs and NVQs offer a solution to the training problem by creating a coherent framework. Wolf (1995) however, feels that the model in place in the UK owes more to cost and ease of implementation in pursuit of targets than actual success in achieving them. A point supported by Hodgson-Wilson (1997). In her article, she discusses the increasing numbers of students being encouraged to stay on the FE or HE and the complementary move to open the access to universities as, for example, in upgrading Polytechnic status to University status. This is defined by Scott (1993) as 'Massification'. She states that in the context of massification of Higher Education, '...cost and easy replication of assessments becomes a paramount concern, even if it is not the one which is most readily articulated and expressed. (p35)' Stewart and Sambrook (1995) take the view that this model, largely adopted by the NCVQ, is a Functional Analysis approach which is far too narrow in its specifications, failing to address broader skills and the social context. Jones and Moore (1995) and Hyland and Weller (1996) agree with this position identifying the NCVQ model as a squarely behaviouristic movement offering only an atomistic approach to competence and sorely lacking in any contextualization or respect for initiative. 'In real world situations, competence is not graded on the basis of measurements against behavioural performance indicators, but through assimilation to the implicit principles and expectations of the group culture.' (p90) Bates (1995) goes even further, suggesting that NVQs and GNVQs cause students to withdraw from the broader aims of education and society or as Robertson (1995) puts it 'the apparent failure to engage with learning as a totality of experiences' (p298). Brown and Evans (1994) take issue with the approach from a different angle suggesting that whilst a training culture might work for Germany (with whom they are comparing the UK model of vocational education) the very lack of a 'training culture' in the UK makes the German model unworkable. They feel that the lack of value given to occupational skills by employers means that in the current 'culture' neither employers nor trainees can really value training per se. They also make the point that outcomes alone may lead to insufficient

learning or too long a period of learning needed than if more reflective Liberal-Humanist methods were employed. Whilst on the subject of employers Hyland (1996) makes a challenge regarding the value of the Outcomes driven NVQs and GNVQs to the economy as a whole. He states that employees have not been either sufficiently involved with or satisfied by the sorts of outcomes compiled through the NCVQ and the Lead Body structure. To a certain extent this is backed up by the reports of Andrews and Bradley (1997), Wolf (1997) and Moore (1988) all of which show that few vocationally educated students go on to work in areas related to their training. Whilst having many reservations about the Advanced GNVQ, Helsby et al (1998) feel that with proper nurturing the qualification has real potential for meaningful learning and personal development.

Recent criticisms of GNVQ as an outcomes qualification have come from Ofsted (1996) and such commentators as Bloomer (1998), Hodgkinson (1998), Yeomans (1998), Bates (1998) and Bates et al (1998). Bloomer (1998) clearly sees the problem as the 'knowledge' of GNVQ being seen as 'Human Proof' (p169), leading to students becoming more receptive than interactive and teachers to consider their job as more to do with coverage than understanding. Yeomans (1998) takes the view that the problem lies in an intrinsic tension between the twin aims of flexibility in learning and efficiency in course delivery and completion leading to more technical rationalistic and utilitarian approaches. In the joint work, Bates et al (1998), the main view to come across is that the problem lies in what has become a watered down autonomy for students. This has resulted in courses that offer freedom but are circumscribed enough to produce a sort of procedural compliance (p178) rather than engagement and critical thinking. In her separate study of student courses, Bates (1998) probes a little further into one individual case and uncovers a tension between the different assumptions surrounding empowerment and how that affects motivation.

However different these criticisms may seem they are all rooted in the idea that GNVQs whilst professing to be progressivist (promoting flexibility, student autonomy, critical thinking etc.) are actually constrained by the demands of market forces and a modern form of 'controlled vocationalism' (Bates et al, 1998, p114). This has led to unfulfilled personal expectations and narrow, instrumentalist courses creating little more than compliant students who are good at 'creative copying and instrumental application of criteria' (p179)

A general view here is that the top down market driven construction of the course and the political rhetoric going with it has let to both teachers and learners seeing the teaching of GNVQ as 'non-problematic technical procedures' (Bates et al, 1998, p121). Along with a non-contestable knowledge base, learning has become over categorised, and knowledge is taken not made. This of course has serious consequences if the social constructivist basis of my study is considered.

An Empirical, qualitative study undertaken by Bloomer (1998) in Devon showed clearly how GNVQs could succumb to circumscription. Here, the high ideals of critical thinking and self directed learning ended up as simple compliance with 'stock formulae' (p177) and research became 'treasure hunts for knowledge' (p172), or as Bates (1998) describes it 'hunter/gatherers of information' (p193).

In her own study Bates (1998) looked at the effect empowering students with progressive ideas had on motivation. She was careful to point out first that the nature of the GNVQ as described above meant that staff and students constantly both trying to cover the work, in its fragmented form and provide motivational settings. The outcome in this case study seemed to be that students did not cope well with the responsibility for learning that they usually joined the course to experience. In fact, their empowerment was limited by the need for the staff to interpret the specifications; practical

difficulties in gathering information and a mismatch in assumptions about what motivated them.

Whilst all of these raise worrying problems with the GNVQ and its delivery and student responses to it (not to mention its suitability as a qualification for a globalised economy) there are important aspects to hold on to in all of the readings and particularly in the case studies quoted.

Both Bloomer (1998) and Bates et al (1998) are clear that the ability to create situations and environments where critical thinking, conceptual depth and self directed learning can flourish are often dependant on the teachers and their resourcefulness. Bates et al (1998) states that whilst there is little evidence that flexibility and responsivity exist 'there are grounds for claiming that the GNVQ framework provides the facility for [them]' (p122). Bloomer (1989) is a little more positive saying of GNVQ. 'It has its successes, although it seems that these often derive more from the agency of teachers and students than the prescriptive curriculum of GNVQ itself' (p184) and he notes that there is a need to reward those who take greater risks in their learning and teaching. Edwards (1977) makes some similar points

After reflecting on the various arguments put forward and in the context of this research, I find myself agreeing with the potential discussed above, especially if the 'culture' of the learning environment is created. There are definite benefits in the structure of outcomes orientated courses that become apparent when teaching. The most significant of which is a close definition that allows students to take on self-learning with a degree of confidence. I acknowledge that this is open to abuse and the pursuit of trivia but if it is combined with a way of developing the individual cognitively then I feel there is potential. This relates to my first research question Research Question 1 (Business Environment, p10)

How practical in terms of delivery is the model? To anyone involved in an outcome-based programme the answer to the above question usually involved a groan and the mention of paperwork and overload. Jessup (1995), Ellis (1995) and Burke (1995) offer the opinion that the mechanism for delivering GNVQs is good, identifying freedom and flexibility as key aspects. Outcomes give flexibility by not defining 'how' but 'what'; or help by 'unpacking the ideas in a desegregation process' (p91) (Ellis, 1995). However, every effort to make the work more explicit or to define assessment can have the effect of atomizing the work and multiplying the paperwork with the effect of turning the programme into a bureaucratic exercise. The whole of 'outcomes-based' education is prone to this problem as noted by Brady (1996). Hodgson-Wilson (1997) in an article discussing the problems of GNVQ offers advice along the lines of 'catch-up weeks', avoiding assessment overload and she even includes a section entitled 'Suggestions for coping'. Both Capey (1995) and NCVQ have also recognised the problems. In the GNVQ Assessment Review, NCVQ (1995) Response analysis it was noted that 73% of centres commented negatively on manageability and among the issues raised were the hindering effect of paperwork and overload. The Scrutiny report of the NCVQ Leimanis (1997) made six main recommendations. Two were to do with overload. One referred to developing recording systems that did not duplicate work and the other involved 'mapping and decisions on reasonable numbers of assignments'. The result of the Dearing (1996) and NCVQ (1995) Reports have meant that there are significant changes in paperwork. This will effect the structure of the teaching and learning programmes and so relate to my third research question (Research Question 3, Cognitive development, p11).

How valid and acceptable are the qualifications generated by an outcomes driven programme? Changes within GNVQ that come into effect by September 2000 are an indication that some aspects of the qualification and by implication the Outcomes model are seen as inappropriate or inadequate. Indeed most of the changes revolve around the answer to the above

question. Acceptance of a new qualification takes, it has been suggested, around ten years. In its infancy a new qualification must make a good foothold to survive to avoid leaving many thousands of students with qualifications of dubious currency. The main concern with GNVQs was that they should become acceptable to both employers and HE. The recent FEDA report by Wolf (1997) suggested that there was growing acceptance in HE, but not so much in the world of work, where resistance is only exceeded by ignorance. Hence documents such as DfEE (1997) 'GNVQ and employers'. Criticisms have fallen on the nature of the assessment regime in particular. Rolle (1996) suggested that there should be a more transparent mechanism for ensuring consistent results. Both Smithers (1994) and Wolf (1995) point to the problem of insufficient external assessment. Smithers is emphatic about this and uses a comparison with 'A' levels to emphasize this. His point is 'the gold standard of 'A' levels, may lie less in what is covered or how it is covered than in its monitoring capacity' (p362). The Multiple Choice Questions of the GNVQs had their purpose within the assessment regime but were seen as wholly invalid if they were the only external check and did not contribute to grading. Alongside the tests the GNVQ Assessment review, Capey (1995) also uncovered evidence to suggest that applying grading criteria was difficult and this further undermined the validity of the qualification. This naturally, has some bearing on the 'evaluation' research question, (Research Question 7, p12). A report on standards of achievement in GNVQs (Ofsted, 1996) noted on the negative side 'uninteresting and narrow assignments lacking in vocational focus and conceptual depth' (p19)

Proposals for changing the model. In a speech in Coventry (Dec 1997) John Capey expressed his confidence that the revisions retained enough of the spirit of GNVQ and a sufficient distancing from the original Jessup model to maintain credibility without succumbing to the 'academic drift' that was such a concern of the proponents of both vocational academic qualifications.

In fact, the GNVQ has undergone enormous revisions under the curriculum 2000 changes. From September 2000 the GNVQ becomes the Advanced Vocational Certificate of Education alongside the revised A levels. The new VCE has been moved closer to the A levels whilst the A levels have themselves been altered. Both qualifications are now on a Unit Module structure and comprise of the same size curriculum building blocks and will be reported on using the same certificate and A-E grade structure. This is to encourage a broadening of experience. 16-18 year olds will now be able to choose a range of subjects both academic and vocational in each year of the sixth form. Most VCE's will be offered in a 6 or 12 unit format, which will equate to one or two old style A levels. Some are offered as 3 unit qualifications and more of those will be coming on line.

A copy of one new specification unit is given in appendix 7. The main changes for the VCE itself are in structure and grading. The new qualifications will have one third of the work assessed externally, no doubt pleasing Smithers (1994) and only one form of assessment will apply to a unit. This means that units will be assessed either by portfolio or by external assessment. Assessment will be by unit now not by element, cutting down the assignments and hopefully a lot of the administration associated with them. Points from both teacher and external assessment will combine to give a figure that will attract a grade from A-E in line with the new GCE. Key skills will no longer be part of the qualification but will be signposted for accreditation if required. Unlike the current GNVQ grading criteria will be contextualised so that the notion of a generic grade will not be used.

The units are also to be organised so that some of it is addressed to the students and some to the teachers, avoiding the use of over-complex language.

One other consideration in this section is the findings of Edwards et al. (1997). Some of this will also be discussed in the following section as it contains the work of Meagher (1997). Whilst there are some criticisms both of the way GNVQ is delivered and the inadequate early enrolment and induction procedures there is also concern that the value of a vocational course as distinct from an academic course needs to be retained.

The argument is that GNVQs are fundamentally different and that one of the problems lies in the continual comparison between GNVQs and 'A' levels. In a sense GNVQs 'market value' is affected by the customers they are believed to attract. GNVQs are still seen as for those not quite good enough to do 'A' levels rather than as celebrating a distinctive approach to learning. This view is likely to make any changes in GNVQs to be more academic, defeating the original objective.

It also fits with traditional views that 'A' Levels are the 'gold standard' and a measure of ambition and leadership. As Meagher (1997) puts it

'In order to escape the taint of providing a "less demanding ladder for the less able to climb" (p100) vocational education at an advanced level has become more theoretical, more knowledge based and more focused on conceptual understanding.'

The nature of teaching and learning under an Outcomes 'regime'.

Supporters of the Outcomes model have defended it primarily from the point of view that determining 'Assessment objectives or outcomes' does not determine the process by which those outcomes are achieved. Burke (1995) 'outcomes led, not outcome dominated.' (p64), and that outcomes are deliberately 'distanced' so as to promote learning, '...based on assessment of outcomes learning arrived at independently of any particular mode, duration or location of learning' (p63), although even amongst the faithful there is the acceptance that some outcomes do determine the nature

of the learning processes employed, (Stanton, 1995). Jessup (1995) goes as far as to say that the outcomes model actually encourages such process aspects as planning and that it is valid as it is based on the assumption that learning is personal. Nash (1995) suggests that it sits well with 'flexible learning'.

From what has been discussed in previous sections it is clear that the heavy prescription and enormous workload of the GNVQs has had a hindering and stifling effect on teaching and learning. In the (GNVQ assessment review 1995) only 13% of centres felt that the current GNVQ assessment regime enhanced effective teaching and learning and that in general teaching was becoming more didactic and bureaucratic in terms of the weight of paper based recording. Sharp (1996) whilst seeing benefits in the GNVQ middle ground approach was distressed by an 'NVQ outcomes' leaning that undervalued the mental skills.

A report on Methods and Effectiveness in Advanced GNVQ teaching undertaken by the University of Newcastle upon Tyne, Meagher (1997) has produced some interesting information regarding the activities going in GNVQ lessons and comparisons with 'A' level lessons.

The categories used in both data collection and analysis reflect (in the GNVQ case especially) Evidence Indicator's outcomes so that activities such as: research, preparing for and delivering presentations, assignments etc. are all manifestation of the heavy prescription of the GNVQ evidence indicators. This is not to say that the indicators are invalid but it does seem to support the belief that 'outcomes' do affect teaching and learning styles.

The observations were supplemented with questioning and the use of Kolb's learning styles inventory but while such 'experiential' learning and constructivist learning approaches are evident in the research reporting, little consideration is given to the cognitive side of teaching and learning. Indeed

the learning styles are offered on two occasions as general perspectives when, by their nature, they are instruments of individuality.

The report also has some cautionary notices on proposed changes. It was felt that there was a balance between pedagogy, content and assessment. Assessment under the current outcomes model was regarded as inflexible but pedagogy and content had greater freedom. The fear was that if both assessment and content were rigid then pedagogy would be unable to respond. The growth of external assessment was seen by the report writers to be a restraint on content and might lead to the feared 'academic drift' rather than the vocational/academic bridge the GNVQ was originally conceived as.

The aim here was not to problematize the GNVQ. As a qualification it is beginning to become accepted by Higher Education and Employers and the keenness of all governments to find a 'middle' road solution, whether it be for economic or political motives, is indisputable. Personally, I feel that the narrowness of the outcome approach is being sufficiently leavened by reform and practice to allow pedagogic flexibility. It is also interesting that recently advice given to External Verifiers over checking work has been aimed much more at the 'spirit' of the evidence requirements rather than simply completion. Alongside this, the sorts of outcomes defined do relate well to cognitive development demands. What is lacking, and I hope will be the basis of my research, is a model for an approach to developing the individual's cognitive ability within established curriculum frameworks. Even the advice offered by FEDA for developing learning resources seems to avoid these issues and remains content to deal with planning and resourcing issues FEDA (1997a, b, c). I wish to explore the 'how' of achieving outcomes.

Social Constructivism and Cognitive Development

In a conscious attempt to take a cognitive approach to achieving GNVQ outcomes in an Advanced GNVQ course I have drawn on the social constructivism theories associated with Vygotsky (1978), Bruner (1986), Wertsch (1985) and others and developments in the form of Experiential learning as articulated by Kolb (1984). Other writers in associated fields have also been included notably Schon (1985) and Boud et al (1985) especially in relation to 'Reflection'. The literature has been reviewed and discussed under five main headings, although there is some degree of overlap. The headings are:

- The socio-cultural context of learning
- The development of cognition and higher mental processes
- Learning styles theories
- The role of the teacher/instructor
- The use and place of assessment

The socio-cultural context of learning. Fundamental to the theories of social constructivism is the importance of culture. In a description of Vygotsky's contribution to education, Kolb (1984) explains 'Human beings create culture with all its artificial stimuli to further their own development.' (p133). This concept of interaction between the learner, who has a physiological development and his or her society means that firstly, the cognitive structures and knowledge of every society will be different and secondly, that the individual's development is inextricably linked to their notion of 'society'. As Bruner (1986) states 'there is not a self separate from the socio-cultural' (p66) and that about meta-cognition 'how much and in what forms it develop will, it seems reasonable to suppose, depend upon the demands of the culture in which one lives,' (p67). Wertsch and Tulviste (1992) point out that human mental functioning is never free of the social and Luria (1976) explains that information from the world around us is culturally and historically categorized.

There is however, no consensus amongst the factions within social constructivism as to the exact nature of the relationship between culture and the individual. Much of the variance is related to the postmodern epistemological debate, (Sarup, 1993, 2nd edn) and the notion of whether the world is defined for individuals by socially constructed means or whether individuals are defined by those means of social construction referred to as 'artifacts' (Prawat, 1996). The debate itself has some aspects that deserve consideration here. The two main schools of thought are the socioculturalist Vygotsky (1978), Wertsch, (1985), Luria, (1976) and Cole et al, (1978) and the Symbolic Interactionist Blumer (1969), Bauersfeld (1988). The socio-culturalists tend to emphasis enculturation and the commonalities within a group, whilst the symbolic interactionalists emphasize the diversity in group members and stress the importance of the immediate social grouping over the larger social group. This is particularly important for my research, as it will be the GNVQ room and department that will be the focus of creating the desired 'culture'. They also allow the individual a more significant role than socio-culturalists do in terms of influence over the construction of culture. Cobb (1994) states that meanings are taken on by a group as consensual domains that emerge through a process of social interaction and negotiation. From the socio-cultural perspective Cole et al, (1978) and Wertsch (1990) offer some similarities but much less of a role for the individual. The notion of individuals having a role and the suggestion that it is the local 'culture' that is important are useful to the first research question (Research Question 1, Business Environment, p10) and the perceived difference between my own micro- and macro-cultures.

This has a significant bearing on the research at hand as it brings into question the ability of students to develop 'business' concepts in the culture that prevails in their own society and within the subculture of their learning establishment. Wertsch (1985) notes that there can be considerable influence on a (learning) programme from the 'socio-cultural processes at the social institutional level' (p74). Relating to my micro-culture. Pressley

and McCormick (1995) point to this whole problem relating it to another field of literature, 'situated cognition', which is concerned specifically with the difficulty of relating learning in a classroom to real situations. This aspect is developed by Engstrom (1991) who describes school practice as 'instrumental impoverishment'. This aspect was noted by students in the initial study and is commented on in chapter three. The cultural influence of the institution and the classroom are seen as important by many researchers studying student achievement. Kolb and Fry (1975) explain that 'learning environments have a profound effect on teaching' while Boud and Miller (1996) refer to 'the total context of learning, bearing in mind that learning and its promotion are highly situation specific.' (p7). They make the important point, which is at the centre of constructivist theory, that learners, through interaction, actively construct their own experience. Learning is not an acquisition. What is learned is constructed socially and culturally and this learned 'culture' influences what learning occurs next. Thus a context created by prior learning mediates what will be learned in future, fitting it into pre constructed cognitive structures.

The development of cognition and higher mental processes. Leaving aside the subtleties of post-modernism, Vygotsky and others who have since taken up his cross, consider the 'culture' that an individual develops within as having a fundamental effect on the way that individual develops both perceptually and cognitively. In his influential book 'Mind in Society' Vygotsky (1978) puts forward several views. Firstly, he suggests that cognitive development is a product of both physiological development and cultural experience, secondly he sees the use of tools (both physical such as a spade and mental such as language) as mediating (and altering) the relationship between the individual and the world, so that as the tools are used and refined so the individual's relationship to the world is redefined and along with that the individual's capacity for cognition is redefined. Thirdly, as elucidated by Wertsch (1985) cognitive developments have their origins in social interaction. Vygotsky (1978) studied the role of social

interaction in development and decided that every function of a child's cultural development appears twice. First between people on a social level (inter-) and later on an individual level (intra-). What emerges from this is a convergence on the belief that the 'social' in social constructivism' is a crucial aspect and must be considered alongside and as part of the creation of a 'business' culture that will support the student's successful achievement of the outcomes of a business 'learning' programme. There is an interesting link here in the approach taken by Vygotsky and the double loop of personal and organisational development by Garratt (1987) in Figure 2.4.

Vygotsky (1978) articulated the concept of the Zone of Proximal Development (ZPD) which is defined by him as 'the distinction between the actual development and the potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.' (p88) whilst Newman and Holzman (1993) refer to it in this manner: the Zone of Proximal Development 'is not a place, it is an activity, an historical unity, the essential social-ness of human beings.' (p79). The elegance of this theory is that it brings together cognitive development, social activity, problem solving and the role of an instructor, teacher etc. in a dynamic way. At no point is a student defined in terms of static ability or achievement, rather the emphasis is on the constant uncovering of potential.

The chart 'Mapping of Theories' (appendix 8) brings together aspects of research carried out by several notable individuals in the Social Constructivist and Experiential learning field. All, except for the Kolb line, are an attempt to use the ZPD or a concept very similar in the case of Feuerstein, to improve learning and they have been shown here in a relationship that brings out similarities in approach, technique outcomes and interventions. Several suggestions of how to utilize or even create ZPDs for assessment and instruction come from the readings. Hedegaard (1990) for example, working in Denmark had a goal of creating a collective class-wide ZPD, whilst Kolb (1978) in pursuing his concept of Learning styles, sees a

ZPD being created by the dialectics of using opposing styles of learning. Hedegaard (1990) and Campione (1989) offer guidance for instructors especially regarding addressing the idea of the Zone of Proximal Development. Hedegaard (1990) referred to it as an analytical tool necessary to plan instruction and others see it as a basis for dynamic, as opposed to static, assessment such as IQ tests. This concept of a means of uncovering and encouraging the green wood of cognition is appealing and many commentators are quick to point to the dangers of extracting the ZPD from the main body of the theory and attempting to use it on its own. So-called Neo-Vygotskians are criticized for trying to wrest the ZPD from history. Newman and Holzman (1993) and Wertsch and Rupert (1993) are particularly scathing of the dyad type approaches that try to use the concept of a ZPD with pairs (dyads) often just the teacher and the student. This is referred to as 'strategy based constructionism'. Campione (1989) seems to get very close to this situation with his description of Assisted Assessment when he discusses using one-to-one tuition (p240).

These studies and links between them offered guidelines on what strategies I could pursue. They also offered suggestions as to the nature of the learning environment, and they also offered ideas on the major point of what role teachers should play. Vygotsky's (1978) view of needing more than just a teacher and student, the so-called 'dyad' approach seemed more justifiable in terms of the reading I had done. Whilst I still felt the dynamic assessment had something to offer in terms of avoiding the negative effects of static assessment, Campione (1989). I decided that the construction of class or group interaction would be a crucial part of the research. At this point, it is necessary to say a little more about Experiential Learning and Learning Styles.

Learning Style Theories. The literature dealing with learning has many themes and several strands of development, some of which can be shown to be compatible with social constructivist theory (see below). They suggest

practical applications and bodies of evidence which in themselves offer tantalizing 'validity-structures' to research. However, these structures need to be looked at with caution. Here, the intention is to discuss the aspects of Learning Style theory that are relevant to the study at hand. It is important to recognise from the outset that this area is fraught with difficulties. This is because the seemingly easy application of Learning Style Inventories (LSI) and the like, to classroom situations offer to all sorts of practitioners, what appear to be simple solutions. Indeed, many commercial teacher guides offer the use of Learning Styles Inventories as a simple way of dealing with a complex problem without acknowledging their weaknesses. Schon (1985) makes a lot of the dilemma between rigour and relevance, and this area is a good example of the problem. It could be argued that the recent survey of GNVQs Meagher (1997) falls into this trap by using quantitative LSI data inappropriately. What knowledge of learning styles can do is set the scene for relevant teaching, it should not be used for static assessment.

The introduction of Kolb into this literature review has created some theoretical difficulties, as at first sight, Kolb's view and the social constructivist perspective do not seem good bedfellows. However, the work of Lave and Wenger (1991), Cobb (1994) and others have offered a way of reconciling them. Kolb, himself, sees little conflict and pays homage to Vygotsky's articulation of the social dimension to learning but his work is much more in line with constructivists like Piaget. Cobb (1994) in an article on mathematical development attacks the view that constructivist and social constructivist need to be exclusive. His main contention is that each constitutes a background for the other. He compares several theorists in each camp and concludes that each side of the fence operates on an assumption that is not developed in their own vocabulary, but can be articulated in the other's terms. An example of this is that the constructivist, Von Glaserfeld (1995) describes learning as cognitive self organization yet assumes the child is participating in cultural practices, whilst Rogoff (1990), who belongs to the social interactionalist school, describes learning as

acculturation via guided participation and assumes an actively participating child. Cobb goes on to suggest that social constructivists could be accused of avoiding responsibility by not focusing on an actively ‘cognizing’ student in the classroom and the constructivists by not accepting the effect of the world beyond the classroom. He suggests that Lave and Wenger’s (1991) social constructivist ‘legitimate peripheral participation’ provides a theory for the creation of the conditions for the possibility of learning and the constructivists then provide a cognitive theory within these conditions.

The proposed research, developing out of this literature review, aims to work in much the same way as described by Cobb. Kolb’s learning styles will be used to aid individual development by providing a linguistic currency for the students. It will offer a means of discussing their progress within a shared framework, a ‘consensual domain’ in social interactionist vocabulary. In one sense it could be described as a Vygotskian psychological tool. The main objective of creating a suitable culture within which social interaction will take place will still be there.

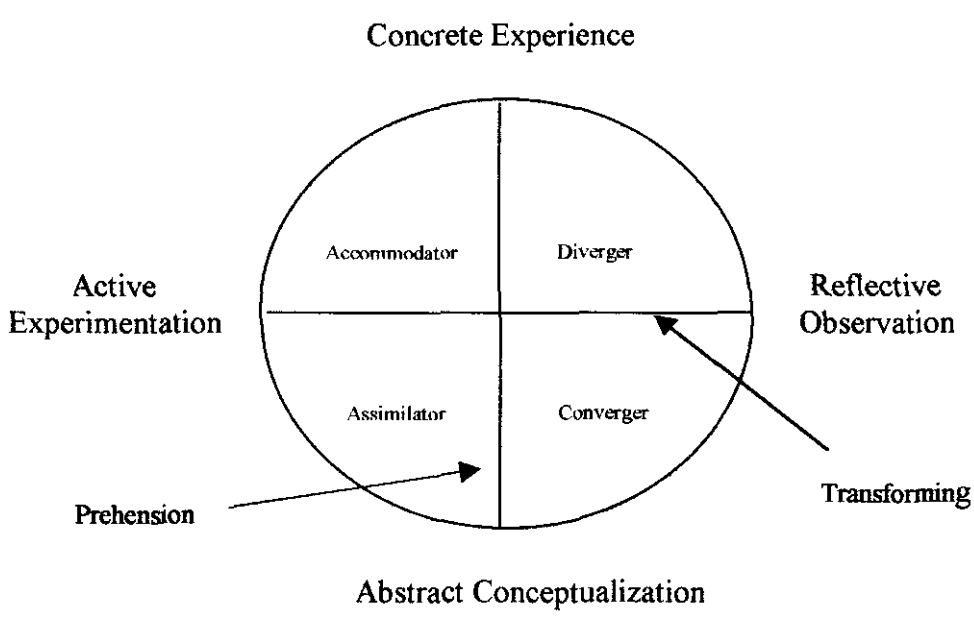


Figure 2.1: Learning Styles Kolb (1984)

Kolb's approach to cognitive development of individuals is one of a number that have been developed over the last few decades. There are many including Honey and Mumford (1992, 2nd edn). Whilst each has its unique features there are sufficient similarities to bring them together using the model designed by Kolb (1985) as a skeleton (Figure 2.1)

His contention is that each of us has a preferred method of grasping information (identified along the vertical axis and described as 'prehension') and of dealing with that information (identified along the horizontal axis and described as 'transforming'). The quadrant bounded by these preferences offers a description of a learner's preferred learning style. (Thus, an Accommodator prefers new and challenging experiences; a 'hands-on' approach etc.....) These preferences operate in all sorts of dimensions including the possibility that different learners prefer different modalities of presentation (i.e. written, verbal, pictorial). Kolb does not suggest these learning states are necessarily fixed or permanent for a particular individual (a point missed by many commercial users of Learning Styles) but he does feel it is a useful tool to identify and use strengths and to develop or improve weaknesses in learning. Other writers offer descriptions that have a bearing on this view. In a series of books De Bono (1970; 1971; 1986) describes people as thinking with six different hats e.g. White-Hat thinking is about assembling facts and classifying information whilst Green-Hat is use for approaching a topic from a different angle. This is not far removed from Kolb's ideas as he seems to be describing the use of learning styles and the overall effects of combining styles, a subject of later chapters in Kolb's book on Experiential learning Kolb (1985). Gardner (1993) and Cambell et al (1993) describe learners as having 'multiple intelligences (linguistic, mathematical, visual/spatial, musical, interpersonal, intrapersonal and kinesthetic) which he sees as groupings of skills and abilities. He builds these into wheel segment that then offers the reader a visual interpretation of strengths, weaknesses and preferences. The wheel is constructed in a similar way to the LSI discussed earlier and offers yet another way of addressing preferred learning. In a later book, Gardner

(1994) offers a framework for analysing educational processes suggesting that some important aspects are: the particular ‘intelligence’ that will be used (learning style?); the means of acquiring information (modality?); and the context in which learning will take place (culture?). Again, the links are clear. Boud et al (1993) whilst describing adults’ approach to learning develops his theme of reflection into four aspects. (Knowing in action, reflection in action, theories in action and reflecting in practice). Again, there is a clear relationship to the learning cycle and stages or aspects of learning that may be strong or underdeveloped. Even the more motivational approach by Entwistle (1987) on Deep and Surface learning can be seen to relate to modality and learning preferences and, in a line reminiscent of Kolb, suggests that Deep Learning ‘demands the interplay of comprehension and operation learning in building up understanding’ (p17). He also points out that, in tune with the social constructivist approach, the Teacher-Learner process emphasizes a three-way interaction between the student, the teacher and the institution’s procedures, in other words, the culture.

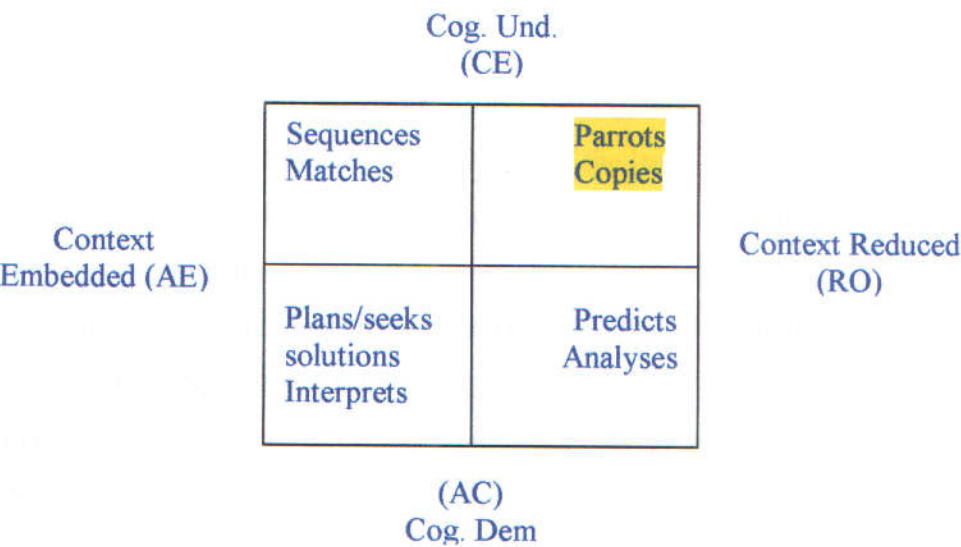


Figure 2.2: Context and cognitive demand in bilingualism. Cummins and Swain (1986)

One other area of interest here is the research done into bilingualism by Cummins and Swain (1986) and later by Hall (1995). The work resulted in a grid differentiating curriculum activities in two dimensions: context and cognitive demand. (Figure 2.2) The diagram below has been deliberately inverted; this gives it some similarities to Kolb's except in the yellow section. The use of a continuum that ranges from cognitively demanding to cognitively undemanding however, does not sit well with the dialectically opposed, but equally valued Concrete Experience (CE) and Abstract Conceptualisation (AC) of Kolb. Whereas Active Experimentation (AC) and Reflective Observation (RO) do fit quite nicely.

The problem, for an action researcher planning to experiment with learning styles, is to decide how closely modality and learning style are linked. Does a particular mode of delivery or activity relate usefully to a style or is it along another dimension, as seems to be suggested by Feuerstein (1979), which could then be used usefully for any style? The role of the teacher in encouraging the social aspects of learning and in creating a suitable learning environment can be seen as important and for this reason features as a large part of the research. (Research Question 4, Teacher's role, p11)

The role of the Teacher/Instructor. Burke (1995), when discussing the contention that teachers were at the centre of the learning model described the Jessup model as having the teacher as a resource, a contributor who 'may be absent from some processes of learning' (p74). Social constructivists see the instructor or teacher as a crucial element in the learning process. This is not to suggest that the teacher-centric model would pervade. Indeed Wertsch (1985) identifies a stage in a student's development where the transition from inter-psychological (the social manifestation) to intra-psychological (when the thought processes are internalized and no longer need to be socially supported) as being characterized by the student taking over responsibility for goal setting and achieving. This is an easily discernible theme in the mapping of theories (appendix 8). Oates and Harkin (1995) when describing 'student-preferred'

teaching roles described two ideals, the Dominant Ideal, that involved co-operation, leadership and structuring and the Student Orientated ideal that centred on student responsibility and freedom. What is clear about the role of the teacher or instructor is that it requires, in operating any of the models being developed by Hedegaard (1990), Campione (1989) and others, a heightened awareness of student potential and a familiarity with a range of strategies for encouraging the development of this potential. This, as all the researchers point out, is a constantly changing landscape and as a result there is a need for constantly changing techniques. Bruner (1986) describes this by explaining that after a student has achieved a 'new higher ground' in cognition 'the new higher concepts' transform the meaning of the lower: algebra, mastered, makes a student see arithmetic in a different light'. Wertsch (1985) points out that at certain points in a student's development there emerges psychological processes that change 'the very type of development' (p19). The teacher's manipulation of variables, of setting tasks and of varying the difficulty and novelty of tasks, will require not just discussion, but ongoing training to make sure that the interventions are appropriate and timely. The teacher becomes a Mediator for learning, a role seen in many different, but always related, ways.

The social context of learning is often subject to the part played by teachers. Wood (1986, 1988) describes the role as contingent teaching, while Backhtin Holquist (1981) outlines the teacher's role in discussing problems and refers to helping students with a social language that is only half-owned by them, the other stakeholder being a 'culture' of some sort. Other guidelines are offered for the teacher as mediator. Gagne (1977, 3rd edn) describes a heirachy of learning that the teacher must help a student ascend, whilst Shipman (1985) offers strategies for assisting this ascent and Von Glaserfeld (1995) underlines the importance of reflection in the process of learning and how teachers can help in encouraging 'reflective talking' at appropriate stages. Many of these strategies and prompts have been utilized in the construction and development of the research. They have been

discussed briefly here, but will be elaborated on in the description of the study included later.

The Use and Place of Assessment. The place of assessment in a social constructivist approach gives rise to a number of considerations, in particular the debate over static and dynamic testing. Traditional 'static testing' such as IQ tests and summative assessment often only looks at outcomes, and this view is supported by Biggs and Kirby (1980) who identify the fact that static tests do not look at the processes going on. In effect, static testing omits any consideration of the very things that need to be improved in terms of cognition for static tests themselves to be improved, robbing them of any diagnostic dimension. Campione (1989) however, offers an alternative approach to the usual static product-based tests in the form of Assisted Assessment with the expressed aim of an emphasis on the evaluation of the psychological processes involved in learning and change. In common with the ZPD approach the emphasis is on potential rather than the negative measures that reinforce a manifest level of functioning, Feuerstein (1979). Campione (1989) suggests that this involves creating the notion of a testing environment incorporating some kind of social support that will create a ZPD in which the students will be able to demonstrate embryonic skills not tapped by static tests.

In Israel, a project was carried out by Feuerstein (1979) with the expressed intention of assessing the 'modifiability' (a term that equates to Potential Development) of an individual by providing the conditions aimed at producing change. This Learning Potential Assessment Device (LPAD) is clearly in the Vygotskian mould but is extremely elaborate, and by Feuerstein's own admission, over-taxing in terms of teacher investment. However, some interesting ideas that have proved useful in my action research have been identified. The text offers a model for assessing potential that looks at three dimensions of a task. The first dimension indicates the increasing degree of complexity and novelty of the task, the

second reflects different methods of presenting the task (modality) and the third dimension represents cognitive operations. Varying tasks across the three dimensions allows the student to be assessed on a five-point scale to assess their 'modifiability'. In an ongoing situation the instructor could build up a picture of what the student can handle cognitively, with help, thereby assessing potential and the student's preferred styles of learning and sensitivity to modes of delivery. This method is akin to the Brown and Ferrarra (1985) experiment, where they constructed a dynamic testing situation to establish aspects of performance that static IQ tests did not uncover. I found some mileage in adapting this model to fit the development and recording of key skills within the targeted GNVQ units. It also provided a tangible way to introduce staff to the complexities of the deeper cognitive issues they needed to be aware of, by providing a visual conceptualization of the situation. This can also be linked to the visual interpretation offered by experiential learning researchers such as Kolb (1985), Harrop (1995), Fielding (1994) made the point that evidence recording in research, is often a problem and so having recording structures that lend themselves both to the requirements of the GNVQ and data collection and interpretation is, if nothing else, sensible. My experience was to be that recording instruments could interfere with teaching if care was not taken.

The approaches discussed in the paragraphs above can be loosely mapped against each other as in the mapping of theories in appendix 8. Here, the main aspects of each theory can be seen in relationship to each other. The emphasis in each is slightly different. For Campione it is transferring of responsibility, for Hedegaard it is the emergence of critical ability and for Wertsch it is concept formation but a general pattern is discernible and interestingly, all can be related to the classical scientific theory. The direction I decided to pursue in the development of my research can be found in the link between Davydov's (1988) 'modeling relationships'; Campione's 'modeling and practicing in actual contexts' and Feuerstein's

‘modification’. Each seems to be stressing the importance of the variety, modality, novelty etc. of tasks in the learning process. Kolb (1985) further developed this aspect in his concept of learning styles and the learning cycle. His work identified four distinct learning styles that individuals favour. Whilst it is important to be aware of these favoured styles, for a student to improve their learning skills generally, all of the four learning styles and combinations of them should be exercised. This fits very neatly with Feuerstein’s three-dimensional model as explained by Stringer et al (1996) and Sharron (1987). What it also provided was a model for both recording student development and involving student’s in that learning development. Kolb’s work is closely identified with Vygotsky’s theories on the social nature of learning (Kolb, 1985) and (Kolb and Fry, 1975) and with the importance of student awareness of their own preferences so that they can take the sort of responsibility for their own learning that all the models in the diagram require.

The Business Environment

As mentioned earlier, the concept of interaction between the learner, who has a physiological development, and his or her society means that firstly, the cognitive structures and knowledge of every society will be different and secondly, that the individual’s development is inextricably linked to their notion of ‘society’. It therefore seemed important to find a way of defining and creating a ‘culture’ within which the students could develop cognitively. Wertsch (1985) and others, describe the influence of the ‘socio-cultural processes at the social institutional level’ (p74) and suggest that the actual area, classroom or departmental environment can be the definition of such a ‘culture’. I therefore felt that a valid approach was to develop a business ‘culture in the main GNVQ room and the department as a whole. As will be seen in the description of the way the research developed, a stumbling block for much of the time was my inability to define what this culture should look like. The very term ‘culture’ was also to cause some problems because

of usage elsewhere, so I eventually decided to use the term 'environment' for reasons described below.

The search for the nature of a business environment, or perhaps, a desirable business environment led to the realisation that business itself was undertaking the same quest. No two business organisations are comparable in every feature but most seem to have taken on board the need to create a working environment and structure that is dynamic, responsive and adaptable. From a search of some of the literature on organisational development, motivation and management it became clear that the answer was seen as developing a 'learning' organisation. A successful business must become a 'learning' business. An interesting twist. Among the commentators and theorist are people such as Garratt (1987) who clearly set the learning organisation at centre stage. 'Learning is the key to coping with change' (p45). These views are also put forward by Stewart (1996, Peters and Waterman, (1982), Handy (1985a,) Schien, (1982) and Kolb et al (1974) amongst others. This work is closely associated with work on motivation and the management of the workforce, and as such offered a means of analysing a business environment. Bearing in mind that even businesses were only aspiring to this goal, it seems reasonable that a close approximation to what business did was reasonable for this research. The level of consensus between theorists in this field made it possible to analyse these environments under a few headings. These will be detailed below with relevant referencing. As this was an additional field of literature review it was not intended to be exhaustive.

The Business environment was thus defined as what a modern learning organisation was aspiring to in terms of:

- Culture, defined by Etzioni (1975) as the shared beliefs, customs, ideas and values of an organisation. Trice and Beyer (1984) add to this the 'practices' that were the manifestations of these shared

ideas. They use terms such as Rites, Rituals and Ceremonies to show how they form a culture

- Climate, described by Etzioni (1975) as the atmosphere created by the feelings and emotions of the employees.
- Forms of Organisation. Handy (1985b) usefully subdivide these into four organisational cultures: Power, Role, Task and Person orientated. Each has its own characteristics and role depending on the business objectives and other circumstances.
- Language. Part of this comes under the Etzioni (1975) description of culture but it is also used by Trice and Beyer (1984) in terms of a common language that both enables communication and has a sociological function in that it excludes others and thus creates an elite, or at least, a separate culture.
- Communication. This is a vital aspect noted by Trice and Beyer (1984), who, in keeping with their approach on cultural development, use terms such as myths and symbols, but it is also commented on by many others. Handy (1985b) for instance, makes the point that communication is at the heart of a good organisation and goes on to show how information on progress, policy, people and points for action need to be in constant free flow.
- Physical space. Etzioni (1975) states that climate is more than just the furniture, but such a statement should not miss the point that such things as the furniture and the geographical layout of the room are important. Garratt (1987), when explaining how important he feels the physical environment is, quotes Churchill (p105) who, when redesigning the House of Commons lobby after its wartime destruction and facing criticism on how crowded it was, said 'first we shape our buildings, then they shape us.' This incident relates how Churchill's intention was to make MP's of all sides rub shoulders and be forced to communicate.

However, for all the positive aspects that appear to arise from the literature on this subject, it is not sensible to simply take it as correct. The theories and suggestions noted above can be looked at in a less favourable light. Esland et al (1999) in their analysis of modern business and higher education points to the growing trend towards managerialism. This comes from the changes caused by globalization forcing companies to think of profit and efficiency as the bottom line. The effect is to use the pretence of being a Post Fordist company to effect fierce and far reaching changes on the workforce. Avis (1996) in his article on the 'Myth of Post Fordism' suggests that what is being seen is really Neo-Fordism. That is, in effect, a neo-Taylorism, where deregulation is used to reduce the wages, security and power of the workforce. The use of 'non-standard' working hours, short shifts (Burger King in the US work on 3 hour shifts) and temporary contracts results in the workforce becoming a variable rather than fixed cost. The effect of this can be to undermine any of the motivational proposals of Hertzberg (1966) or Locke (1976) or any of the others. Most theorists in this area make a lot of the fact that motivation to work is not often related to pay. Goals, achievement and satisfaction are usually put at the top of the list, but the emphasis on human resources as opposed to Personnel means that these are the very things that are lost. Handy (1985b) makes much of communication and shared goals but the pressures to cut costs and be accountable all too often have the effect of reducing downward communication to orders and directives. Garratt (1987) is all too aware of this when he describes a situation he describes as the action fixated non-learning cycle. Here the pressure is so intense and so little consideration is given to time for reflection that a continuous cycle of doing and redoing results in nothing being learned from the experience.

The Business climate and the King John GNVQ

There were a number of exciting things that came out of this tranche of research. One was the level of consensus on how to evaluate the business 'learning' environment and another was how closely the dual approach of environment and individual performance were matched by organisational theorists, a clear link between this and Vygotsky, with mental processes being developed on both the social and personal levels. The word 'performance' is used here as it enables a comparison between the worker and the student. Each is working to achieve, each needs motivation and each is affected by the environment within which they work. From the outset students at King John doing GNVQ were encouraged to think of the GNVQ course as a company with the production of their results as the outcome.

Pedler et al (1991) offers eleven characteristics that will be present in a learning organisation:

1. The learning approach to strategy
2. Participative policy making
3. Informating
4. Formative accounting and control
5. Internal exchange
6. Reward flexibility
7. Enabling structures
8. Boundary workers as environmental scanners
9. Inter-company learning
10. Learning climate
11. Self-development opportunities for all.

It is not difficult to relate these to a modern education approach and it is clear that aspects such as enabling structures, information movement and exchange, fit with the earlier suggestions. Incidentally, point 8 relates quite

well to the use of outsiders for triangulation, discussed in the section on the methodology.

Similar lists can be found in the literature associated with Organisational Development and especially in work done on evaluating organisational climates described by Stewart (1996) (p64) as Survey Feedback. Bennis (1976, 3rd edn), French (1984 3rd edn), and Margulies, (1971) expounded this methodology involving collecting data by examination and discussion of results. Their feedback survey method involves collecting data on factors such as clarity of goals and objectives, personal relationships, effectiveness of communications, etc. This is further developed through the work of Schien (1982) in looking at the Process Consultation approach to organisational development. It, too, makes use of a list that involves communication, decision making, problem solving, inter-group cooperation, leadership and interpersonal relationships.

I made use of the readings and ideas here to construct methods of data collection and environment evaluation that had an intrinsic validity. However, it was also possible to add some validity to the whole twin approach of environment and individual learning development propounded by the research.

In an attempt to identify the stakeholders and environment, I used the concept of the macro and micro culture (appendix 1) where the macro involved the wider stakeholders and the micro related to the students development within the culture (or subculture) of the school. Garratt (1987) in discussing a heirachy of learning cultures (p106) affecting organisations identifies four. The lower two are the 'Work group' and the 'micro' or corporate culture which relate closely to Micro and Macro (Micro = Macro, Workgroup = Micro). This is illustrated in figure 2.3

Garratt Terminology	King John Research Terminology
Meta Culture (Integrating, probably too high to attain)	
Mega Culture (National)	Possibly relating to Agency pressures such as QCA, DfEE and Employers
Micro Culture (Corporate)	Macro-Culture (Establishment, influences on it, notion of stakeholders)
Work Group Culture (Specialist)	Micro-Culture (Teaching and learning and assessment within GNVQ)

Figure 2.3: Relationship between Garratt (1987) Business organisational culture terminology and King John research culture terminology.

There is also a close link between the whole idea that learning happens in both the social and the cognitive, relating to the learning styles and the environment. Both Garratt (1987 and Stewart (1996) refer to what they describe as the ‘Double loop of personal and organisational development. (Figure 2.4)

Using the business motivational and management literature more links could be found as it must be remembered that from the point of view of Etzioni (1975) the climate of a business environment also includes attitudes etc. Again, without delving too deeply into the vast amount of literature in this area it is possible to see aspects of many theorists’ work and how they relate to the structuring of a business environment. Vroom (1964) in his Expectancy theory identifies an aspect of motivation he terms Valence, which relates to what the worker expects in terms of satisfaction from some action, which maps easily on to the student’s possible achievement. Similar

claims are made by McClelland (1961), who clearly points to the ‘need for achievement’ as a motivational factor and Locke (1976) who relates performance to goal setting and personal values. An interesting theorist in this area is Herzberg (1966) who uses a twin factor theory dividing motivational factors into two categories, ‘Satisfiers’ and ‘Non-Satisfiers’. Satisfiers are factors that will provide motivation and include achievement, recognition, job satisfaction, responsibility etc, whilst the Non-satisfiers will not in themselves provide motivation. They are necessary for motivation to

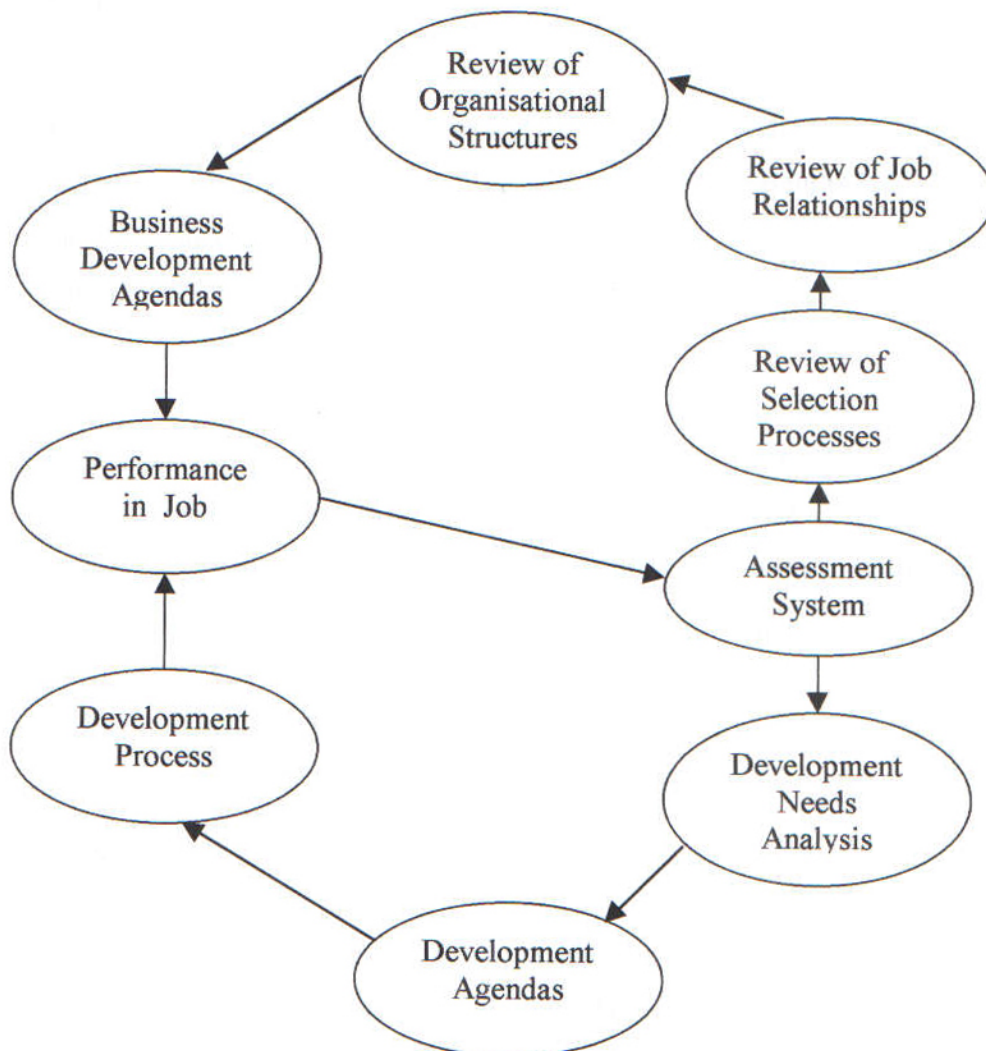


Figure 2.4: Double loop of personal and organisational development. (Garratt, 1987)

happen and without their positive aspects will militate against motivation . They include company policy, quality of supervision, working conditions,

relationships with others etc. The link to both the twin approaches of the research and the importance of a 'learning' environment is clear but what is also interesting in this work is that the non-satisfiers are nearly all related to the environment as opposed to the individuals performance and achievement. A simple approach to this would be to suggest that the environment must be right for development to take place, the basic idea of Vygotsky.

Summary of literature review

The literature on GNVQ rationale and development left me with confidence that, within the highly structured specifications and apparent prescription, there was sufficient space to develop courses and approaches that would both provide the 'mind-set required by the political agenda and encourage cognitive development.

I was also convinced that there were valid approaches offered by social constructivism in terms of building a 'business' culture. Within that I felt that the use of Kolb's learning styles would offer a common language and means for students to monitor and discuss their own development.

Whilst fraught with its own problems the literature on organisational development and business culture, offered a means of creating a valid culture within which to nurture the students.

The literature on action research had also equipped me with what would eventually become a reasonable sound methodology with which to collect, organize and evaluate data

Lastly, the readings had made me consider the terminology used in the research very carefully. These terms will be outlined in the next chapter.

CHAPTER THREE

Methodology and research instruments/procedures

Action Research

Action Research (AR) was chosen as the most appropriate methodology for this study. Not only was this following in a long line of tradition from the engineering model (OU E835 p23) to people like Stenhouse (1975 and Lewin (1946), but there was also a coherence and comfort in the fact that all Action Research practitioners use a form of structure that relates to the Kolb learning cycle. A useful quote on this was from Kemmis (1991, 2nd edn) where he defined Action Research as:

‘Collective self reflective enquiry undertaken by participants in social situations in order to improve...educational practices...as well as their understanding of these practices and the situations in which the practices are carried out.’ (p174)

This was particularly appropriate, as the actual environment of GNVQ teaching was one of the areas targeted for research. His spiral of self-reflection involves planning, acting, observing and reflecting and gains its rigour from coherence and validity. This is also developed by Lacey (1976), who articulates it as a spiral of growing understanding.

Hammersley (1993) describes a typical AR structure as action, monitoring, consequences and reconstruction of an interpretation to inform future action within that context (p182). He then points out that:

‘Knowledge achieved in this way informs and refines both specific planning in relation to practice and practitioner’s practical theory (p182)’

The starting point for an action research approach would be a ‘concern’ over classroom practice, Barrett and Whitehead (1985) or ‘a statement and imagination of the problem’ McNiff (1995) or ‘some general concerns and specific quibbles’ as Burgess (1985) more lightheartedly suggests or even as Ebbutt (1985) articulates it, finding a performance gap ‘...(a gap) between the idea and the reality.’

For the research in hand Hopkins (1994), offered a closer definition that fitted my approach. I was interested in seeing if social constructivist approaches could help close this ‘gap’, so rather than start from an ‘imagination’ I was starting from a hypothesis. He suggested that one approach to AR was, in what he and Elliot (1991) described as a ‘closed’ question or ‘testing’ approach characterized by taking a specific issue, deriving research questions and then choosing appropriate methodology to apply an existing theory. It also aligned closely to the work done by Kemmis (1991), Winter, (1989) and Stenhouse (1975) and the definition of Lewin (1946)

‘Theory is generated and tested and developed through being applied and reformulated on the basis of its application and then reapplied in a spiral of scientific and practical development.’ (OU, E835) (p25).

There are overtones here of the engineering model but the attractiveness is how well it fitted into the basic concepts of the theories being ‘tested’ in the Action Research. Thus the research methodology began to take the form of a series of research loops or cycles each modified from the experience of the previous one. This however, was a little too simple as I will explain later.

The nature of the methodology and the subject made it reasonable to assume that the bulk of the information collected would be qualitative in nature. At the beginning of the research there was a suggestion that some quantitative data would emerge. As a result of this I made a trawl through the literature on psychology, statistics and even behavioural sciences Loos (1995), Graham (1995) and Catlow (1993). Whilst there was some quantitative aspect in the final data analysis I felt it was acceptable to maintain an essentially qualitative approach.

It was also clear that the different cycles of the proposed action research would throw up not just methods for moving on but also insights into aspects of teaching, learning and the environment pertinent to that situation. I therefore decided that whilst the main thrust should be to prepare for a third cycle that was as well defined and organised as possible, it was important to record and comment on findings along the way. Schofield (1989) points out (p93) 'Validity...the goal is not to produce a standardised set of results...rather it is to produce a coherent and illuminating description and perspective on a situation that is based on and consistent with detailed study of that situation'

Writers such as Smetherton (1981), Hardman (1994) and Hage and Meeker (1988) spend a lot of time discussing how data is collected, analysed, categorized and finally coalesces into something useful. I felt that it might be necessary to trace the development of this study in a way that highlighted not just how the data was finally collected, but how the methodology evolved.

All this gave the methodology a decidedly illuminative look, which I felt was justified in the light of a study that looked at process and ongoing development, not just static assessment or final achievement.

The three main models of action research described by Kemmis (1991,^{2nd} edn), Lewin, (1946) and Elliott (1976, 1991) are all very closely related with their genesis in Lewin's work. All have at their root a cyclical approach and varying aspects that reflect the writers' interests and preoccupations.

Examples are given in Appendix 9 and it can be seen that Elliot's is the most comprehensive but all three appeared to have the same flaw. Whilst all recognised the importance of some sort of reflection and amendments resulting from that reflection, none considered that the methods of evidence collection might be affected by changes. I decided early on that this must feature in my structuring of the action research cycle. There is some precedent in this decision as Hopkins (1994) suggests that there are four stages of classroom research: Data collection, validation, interpretation by reference to theory, and action. He notes that the process is interactive, which suggests that the validation aspect becomes interactive with the AR cycles, responding and adapting (perhaps mutating is better) as the cycles turn. I became very aware here of one of the tenets of Vygotskian constructivism in relation to this. Gitlin et al (1989) pointed out the difficulties of expecting methodology to remain unchanged.

'it is necessary that method not be viewed simply as a tool to use to solve a problem. Vygotsky's work on tool use, carried out in another context is apropos here. He concluded that there is no tool whose use does not shape the person using it just as much as it shapes the external environment.' (p205)

Methods of data collection

A number of methods were used to collect data during this period. I intend to outline them here and note their particular use, then elaborate on them further as part of the discussion of the action research cycles.

The first method was observation. This was used to help define the categories for analysing both the environment and the student's interaction. In the first cycle this was fairly unstructured and was a combination of field notes recorded in my research diary, discussion, a small excursion into videoing a lesson and comments from students and staff, as well as reflections of my own. This evolved into a close observation of the students' interaction in the following cycles using instruments developed from this early work. It also provided an underlying structure and validity to an observation schedule used in the third cycle, to study the student's interaction with, and use, of the environment. Copies of schedules can be found in appendix 10.

The second method was documentary analysis of the students' records in terms of their achievement in the GNVQs they were undertaking. The structure of assessment in GNVQ made it possible for me to use the grading themes (planning, information seeking and handling, evaluation and quality of outcomes) as one measure of the success of the techniques I was implementing. Another measure was their performance in the key skills of communication, application of number and information technology (IT) as was their unit test results. As part of the work was taking responsibility for their conduct and achievement it was also legitimate to use records of their performance kept by other's and the most ready source of information here was their sixth form work experience reports.

By far the most important data element to collect was the attitudes and feeling of the students' themselves through questionnaires and interviews. This was achieved in a variety of ways and a variety of formats. A big issue here was overload and student fatigue. Bearing in mind the depth of information I needed to collect, constant in-depth interviews and questionnaires would have become wearying. I therefore learned, by the third cycle, to make the data collection become part of the ongoing review process. A schedule, developed in the first cycle, underpinned the questions

that were discussed in review lessons and individual sessions. It also appeared as part of the written evaluations required for grading.

A general pattern emerged that followed this general approach.

Students were introduced to what I was trying to do. It was made as clear as possible that the use of learning styles was there to try to help them improve their cognitive capabilities and to become independent learners. After a discussion and demonstration aimed at giving them some confidence in this they each completed the Kolb Learning Styles Inventory and visual representations were generated that they stuck on to exercise books or put in folders.

As topics were introduced and taught according to a structured format determined by the theory and empirical work data was collected. Responses recording the perceived usefulness of the techniques. They also recorded what they felt they were learning about themselves as 'learners', and their own strengths and weaknesses. Some of these were group discussions others were small forms to fill in or even individual talks. Variety of approach was important to avoid the 'wearying' I spoke of earlier. By the final cycle, I was concentrating much more on what the students were taking forward from their experiences and if they were able to learn from that.

During this period there were also opportunities to ask the staff for their opinions of the way the students were working and of the effect of the environment on them. Work experience and tests also offered opportunities.

At intervals the students were given a formal assignment to complete as part of their summative portfolio assessment. During this period I collected data on their approach to the work and their actual activities within the environment created to support their development.

The penultimate step was to analyse their achievements in terms of the grading themes and key skills. The evaluations provided information on the way the students had reacted to the work and brought forward what they had learned about themselves as learners.

The final step was to link the data gained from the reflections and interviews etc, to the observational evidence taken mainly from the assignment period.

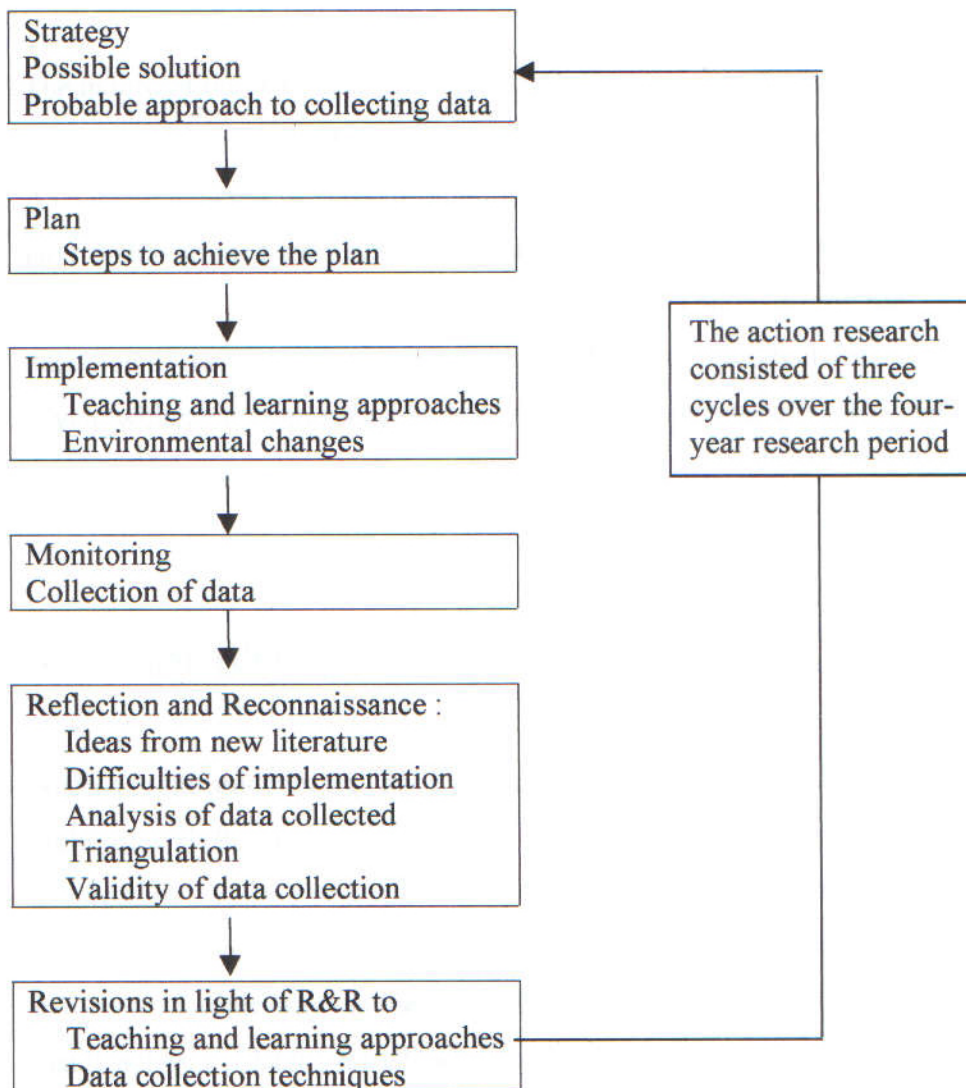


Figure 3.1: The variation of the Action Research cycle developed for this research

The following chapters will describe, in a narrative, the successive cycles of the action research as it played out over the three years. The diagrammatical representation of this approach shown in Figure 3.1 offers a framework for those chapters whilst allowing the freedom to describe and reflect on the various findings.

Note on ordering of literature and findings

The nature of the AR loop meant that the reflection period accepted, and indeed hoped for, new literature and readings to fertilize the emerging ideas. As a result some of the literature in the review in chapter two came a lot later than is immediately apparent. I shall try to identify where this happened. The second thing to note is that findings noted during the narrative of the action research may not be dealt with in detail until chapter seven, which has been set aside to draw all the threads together and make sense of the research overall.

Access and ethical considerations

Access to the students was not a problem. Permission for me to use the embryonic sixth form for the research was given enthusiastically by the headteacher. I also discussed what I was planning to do with the staff involved and received their agreement and in several cases their desire to be involved ‘in some way’ as the research progressed. I owe both them and the headteacher my thanks for allowing the project to go ahead. The students too were happy to be involved and gave their permission.

As the sixth form GNVQ classes were all quite small and I had put the GNVQ department into place it was possible for me to be involved in the

teaching of all the groups. The quality process of Internal Verification of assessment meant that I also had access to marking from all areas of the courses.

From the outset I recognised that the student's needed to be fully aware of what I was doing and to be happy to be a party to it. Over the three years of research I had no problems with student's being unwilling or hostile to the work. By identifying aspects of the course, evaluations and meetings that were directly related to the research I was able to be honest and open.

The student's all reacted positively to the research and felt confident about taking me to task over aspects of it. This was particularly the case when pressure was on, in some terms, to complete work by deadlines. The vast majority of students were positive about their experiences but on one or two occasions there were comments from boys along the lines 'can't we just do it?' This led into discussions about self development and deep and surface learning. I found this particularly interesting as the great concern of many opponents to the 'outcomes' approach and CBET in general is just this fear of work being done mechanistically and the encouragement not to be exactly the sort of thinking worker the new globalised economy needs.

The school, the Sixth Form and the associated culture and ethos

The culture of the school, defined in this study as the 'macro-culture', needs some fleshing out at this point as it was obviously, likely to have some effect on the students and indeed, myself. I have therefore included a short history of the development of the Sixth Form and some discussion of the nature of the ethos and culture found within it. The GNVQ department was part of the overall Sixth Form development but maintained a certain distance due to the nature of the GNVQ courses.

The Sixth Form was started in 1994 after a successful bid to what was then the Department for Education to expand from an 11-16 to an 11-18 school. The success of the bid, which included a vocational provision, was underlined by the unexpected addition of funds to build a brand new extension for the proposed Sixth Form. Although this took over a year to complete it meant that by the time the Sixth Form was well established it had its own brand new accommodation. The Sixth Form grew from 30 in the first year to 70 then up to its present size of around 120-130 students in each year.

The bulk of these came from the school's Year 11 pupils (a population of around 300) with some 10% from other institutions and a few returning after a year at work or simply staying on for a further year. The encouragement for students to stay on led to a conscious attempt to see the school as an 11-18 institution. Sixth Formers were therefore part of the school in many respects, joining in with dramatic and musical events but staying a little at a distance, having their own common room and codes of behaviour.

The ethos of the Sixth Form developed around the twin thrusts of academic excellence and competition with a local Sixth Form college, whose opposition to the establishment of the school's Sixth Form was very vocal.

The school thus offered the parents, and to some degree the students, the same level of monitoring, support and pastoral care that it had in Key Stage 4, whilst at the same time allowing informal dress, more freedom of movement and relationships. This led to a fairly 'college-like' atmosphere that retained certain 'school' elements. Many staff still required the students to call them 'sir' or 'miss' and many classrooms were still more formal than in colleges.

The academic aspect was underlined by the level of expectation for entry. The norm was for students to study 3 'A' levels or a GNVQ (sometimes, in conjunction with an 'A' level). Some students were also doing GCSE retakes. The entrance requirement was set at 36 points for 'A' levels and 32 points for GNVQ with a reasonable grade in Maths and English. For both qualifications there was an element of flexibility, especially where the school's own Y11 students were concerned, as enough was known about them to allow for unexpectedly bad GCSE results or to capitalise on known hard working students.

From the start of GNVQ, a year after the opening, there was an expectation that the students would be doing an advanced course. The school management had made a conscious decision to start with a high level of expectation and this had the advantage of giving the GNVQ students an almost equal status with 'A' level students which may not have happened if Intermediate GNVQs had been introduced at the same time. There was therefore, never any real problem with stigmatisation. GNVQ was simply seen as 'different'. The fact that it had its own room and constant access to IT gave it a certain esteem as did the high level of IT skills that GNVQ students were able to demonstrate to their peers.

It must be remembered, though, that the GNVQ experience, however different could never be isolated from the traditional work going on all around.

1 Situation variables: the nature of the GNVQ student sample

From the first year, the GNVQ attracted a constant 20-25% of the student intake into the Sixth Form, which meant that the groups were all small. The sample groups used in the research were usually around 7 students, which

was about the same size as most of the 'A' level groups in the Sixth Form. Over the four years of the study the groups were surprisingly similar in makeup. Most had made the 32 points with C-B grades in English and Maths GCSE and some were in the 36+ points bracket that would have enabled them to take 'A'levels had they wished to. In almost every group there was one from outside the school, often from a local grammar schools where GNVQs were not offered, and several started the course running an 'A'level alongside. Not all of these continued this to the exam, finding the demands of the GNVQ and the loss of non-contact time too heavy a burden. In most groups there was also one student whose grades were below the desired level either in overall points or in English or Maths. None of these factors seemed to be generally significant in overall achievement in the course. Of greater importance was the level of motivation. Significantly, the least motivated students (3 over the course of the study) were the ones who did not complete the course, finding the nature of the work not to their liking. In general, the nature of the selection, the courses on offer and the ethos of the school made the expectations of the GNVQ clear and this led to those who wanted to do a different type of course signing on.

One area of great variance was the student's own ambitions and career directions. Many entered the course with a vague idea of what they wanted to do that firmed up at the end of the first year, when the careers advice offered by the Sixth Form began to kick in, but the goals were very wide. Some saw the qualification as a direct route into work and others as a vehicle for university. The motivation to work often increased when the direction was more firmly established in year 13. There was also a slight difference in motivation by gender. In the Leisure and Tourism groups it was generally the girls who displayed more motivation, but not always, whilst in the business groups it was more likely to be the boys, but then the business groups were often top heavy with boys, a situation found in many business GNVQ groups across the country.

The Kolb Learning Styles Inventory was used with all the groups. Overall, 36% were Accommodators, another 36% were Convergers, whilst 22% were Assimilators and 6% only were Divergers. There was a further interesting division between the Business and Leisure and Tourism groups. In the Business group, nearly 60% were Convergers with the rest almost evenly spread amongst the other styles, whilst in the Leisure and Tourism group about 50% were Accommodators with another 25% Assimilators and the rest spread between the other styles. Although these were interesting in themselves the spread did not relate with any significance to the only other source of learning styles for GNVQ collected by the Newcastle report into GNVQs, (Meagher, 1997) so no real conclusions could be drawn from them.

Relationships between students within groups and within the GNVQ area as a whole were good, although there was one problem, alluded to later in the study, that did cause some difficulties. Relationships with staff were also good. There was a variation in the way staff were addressed, some still preferring a more formal interaction, but in general, the students worked well with all the staff they encountered

2 Consideration of the effects of variables on validity/authenticity and reliability/generalisability

The results from the study need to be considered in the light of the context and the variables noted above. The fact that the students were very clear, when they were recruited, as to the expectations and the general ethos of King John may have led to a sample that included more 'motivated' students than would be the case in some other institutions which of course, would limit the amount of generalising that could be done from this sample. The fact that the school was familiar with most of the students is also a consideration. One effect of this would be to include students who may

have had the ability to do the course but have not achieved the 32 points needed to enter another college. It was also likely to have had an effect on the staff's overall understanding of the students' prior attainment and needs. The effect of this was not easy to either identify or isolate. Small groups sizes may also have some distorting effect but the size of the GNVQ groups at King John were about average for this sort of course in schools, certainly in Essex the classes were the third largest in the county. Due to the nature of the recruitment there was also no great range in ability.

It is also possible that such things as the level of support and familiarity with staff and students could have produced more favourable results than might have been achieved in say, a Further Education college. On the other hand, the 'school-like' atmosphere that was still prevalent in the Sixth Form may also have militated against the 'business' culture that I was trying to create.

In terms of reliability, the nature and the ethos of the college and the relationships with the students did, I feel, lend itself to open and honest responses. Students were prepared to do the extra work involved in some aspects of the research as long as they felt it was for them. They were also prepared to say what they felt and complain especially when time was precious and they just wanted to 'get on with it' as noted on page 61.

The reliability of the data and the student results was a continual concern of mine. I was very aware of the possibility of my own agenda creeping in and that the 'researcher effect' could distort responses. I made regular arrangements for triangulation, which included discussing the data collection techniques with other staff, asking others to try the documentation I was using to capture data, and submitting work for the usual internal and external verification process. There was an ethical consideration here, which was handled by my assessment of the student's work being checked by others in the normal course of events. Certainly, my

own relationship with the students was likely to have an effect on results, especially in getting 'the answers I really wanted' from interviews. It was a good relationship, but it did not stop the students from being 'nicely' critical on more than one occasion. The addition of some observation in a later cycle of the action research was partly due to my concern that there may be too much subjectivity in the questionnaires and that data collected on a valid selection regime such as the one described in Chapter 7 would help to offset this. One thing this will not avoid, though will be the emphasis, I as the researcher, will put on the different data collected. The weight of any given set of data is likely to be a subjective decision and one that, although I am aware of and will do my best to avoid may not be a visible to me as it may be to others.

As discussed in the final chapter, the nature of the research does limit the generalisability to similar institutions, i.e. Sixth Forms in a school, rather than in Further Education. Another aspect that might reduce or at least temper generalisability, especially in relation to the culture was the lack of an Intermediate programme during the life of the research. Having purely advanced courses may have had a skewing effect on both the type of student and the responses to the development of a businesslike culture.

The research is Action Research, which by its nature is aimed at uncovering practice and implementing theory in the context of the King John. The changing nature of the GNVQ, in the form of Advanced Vocational Certificates, will also mean some changes to the generalisability of this study. Whilst at present it is possible to run GNVQ courses separately and therefore isolate them to some extent from the rest of the school culture, the mix and match of vocational and academic in the AVC will preclude this.

3 Summary of data collection

A full description of the database is included at the end of the study in the section called 'Notes on the organisation of the database' on page 175 and throughout the research it is referred to using a code, (e.g. [Rev/5 Jan 98]). In order to make the data collection clear I have included below a summary of how the data was collected

The first cycle of action research.

During the academic year 1997/8 one group of Y12 Leisure and Tourism students was used to pilot the initial study. This involved one term's work on one unit. It began with establishing learning styles, applying the work then collecting data from interviews, questionnaires and analysis of assignments.

The second cycle of action research.

During the academic year 1998/9 the work was extended to three groups across both Business and Leisure and Tourism and across both years 12 and 13 working on several units. This again involved meetings, learning style determination, applying the work and collecting data from interviews, meetings and analysis of assignments. This year also saw some early lesson observation work. Data was also collected from other staff's observation and impressions

The third cycle of action research.

The final cycle of data collection in the academic year 1999/2000 again involved both programmes and both years working on several units. This year involved preliminary and induction reviews with students, establishing learning styles; application of work with regular reviews and was followed

up with interviews, structured observation of the students completing the assignments, then analysis of those assignments. The final data collected in was from staff and students regarding the use of the GNVQ room and their perception of the culture created.

CHAPTER FOUR

The first Action Research cycle (1997-1998)

Strategy

The aim of the initial study was to pilot a set of activities that would offer a structure for a teaching, learning and assessment phase (Research Questions 2 and 3, p11) as well as a means of recording individual development. It would also need to encourage students to manage their own learning and help identify the teacher's useful interventions. (Research Questions 4 and 5, p11) This last aspect would, hopefully, suggest necessary staff development strategies.

It was clear from the readings that the over-arching need was to develop the environment, or as Vygotsky (1978) would prefer to call it 'the culture' that all the work was to be undertaken within (Research Question 1, p10). The main point was that the concept of culture had to be addressed on two planes. The first was the culture of the course as a whole, which I will refer to as the 'Macro-Culture'. This meant making the overall approach, the orientation of the course, room regime, work organisation, motivation and outside links as much like a business culture as possible to pervade instruction and development. The second plane, the culture of a particular unit or element of work, will be referred to as the 'micro-culture'. This needed to be tackled by defining the resources, teaching approaches and the nature of teacher preparation within the context of the subject matter. This would help to define subject-related techniques and conventions.

The distinction created by this research project of macro and micro culture relates to the discussion of the various schools of post-modern

constructionism especially the Symbolic interactionalism identified by Prawat (1996) and articulated by Blumer (1969) and where much more emphasis is put on the local group culture rather than the wider society.

In the first cycle of action research the subject area was to be 'Marketing' in Advanced Leisure and Tourism. Over the next few terms this was to be elaborated, developed and extended over several Business and Leisure and Tourism units.

Plan

From this initial study I hoped to do a number of specific things:

- To use LSI, as a tool to help students monitor their development and range of experience, so that they could indeed, take on a major responsibility for their own development. (Research question 6, p12)
- To study the practicalities of devising activities and developing strategies that were flexible enough to address a range of learning styles, to look at the workload it put on individual staff and required training or guidelines. (Research questions 2, 3, 4 and 5, pp11)
- To refine the recording of individual development so that it became practical, diagnostic and integrated into the usual GNVQ recording
- To use student and staff responses and comments on the ideas to develop an instrument to evaluate the success or otherwise of the research. (Research question 7, p12)

Implementation

Teaching and Learning approaches.

Using Marketing in L&T as an example, the structure of the initial study is outlined below:

- With the aid of Kolb's Learning Styles Inventory (LSI) the students identified their preferred learning styles (See appendix 11). One other member of staff was involved with this and an LSI example is included in Appendix 12
- A joint inset (staff and students) took place to discuss the usefulness of understanding preferred learning styles and to provide the students with a graphical means of identifying areas of learning they wished to develop and of achieving a balance of approaches.
- With the aim of balancing approaches, the work was broken down into sections. (See appendix 13).

To avoid confusion I used specific terms to identify the sections of the initial study work. The *Assignment* is the end activity designed to assess the students against the evidence indicators of an element or elements. This is assessed and graded as a piece of work to be put in the students' portfolio. The work leading up to the *Assignment* is referred to as the *Teaching and Learning phase*. This is made up of *Activities* designed to address aspects of the element. Each *Activity* contains up to four *Tasks* that are designed to address one or more of the learning styles. The choice of which *Task* to undertake belongs to the students. Key Skills were used to vary the mode in a way that offers the novelty and complexity demanded by Feuerstein (1979) and makes sense to the students in terms of Key skills coverage. A concern here was the validity of tasks designated for a particular learning style. After designing a dozen or so activities that related to a particular style I became reasonably confident that it could be done by any teacher with a little training. Guidance for this came from the literature noted above and my own MA research Hartley (1991) and work generated by TVEI

projects TVEI (1991) when I was a TVEI Curriculum Development Manager. Further information and suggestions were gleaned from some of the commercial books and research societies reports available e.g. Blagg et al (1899), Smith (1996), Dickenson (1996)

To assist the students in choices the tasks were labeled tasks by learning style.

The work was broken into sections. The first two activities offered four tasks each relating to different Learning Style. The third activity offered two tasks each relating to two styles and the fourth was a simplified version of the final assessment piece and addressed all four styles. From that point on the students were into an assessment phase involving the completion of an assignment and this involved organizing and dividing up the work. At regular intervals (See Notes on organisation of the database) the staff and students discussed both the usefulness of the recording instrument and the ease or difficulty they found in either identifying or addressing learning styles.

Environment.

By this point little work had been done on the nature of the business environment. The main thrust of this part of the research was to develop a discursive atmosphere and to highlight the importance of sharing information, which turned out to be a major aspect of the work by Handy (1985b). The whole idea of relevance of the work to the students and to their future employment was also focussed on.

Monitoring

Collection of Data.

In order to give an indication of the nature and scale of the data collected a section of notes on the organisation of the database has been included at the end of the report. This references the major data collection events and

groups them by action research cycle. I will elaborate more on this in the introduction to chapter seven.

In this first cycle the data collected was of two main types. The first was a chart of the students' choices and route through the work, details of this were kept on recording sheets and in (Field notes, Vol.1, Mar 98). The second was from responses about their perceptions of the value and general usefulness of the work. Information was gained through questioning, (Int/28 Mar 98) and questionnaires (Survey/23 Mar 98) using a prepared schedule (appendix 14).

Reflection and Reconnaissance

Ideas from new literature.

There is a need to emphasise the particular use made here of the LSI. It is a well used and respected instrument (even by the Newcastle researchers evaluating GNVQs Meagher (1997) and can be reconciled with social constructivist theory but the aim was not to research it's application. Here, the LSI was to be used as a tool for making student's aware of potential development and strategies for improving without involving them in the intricacies and the time investment in understanding the theory. The aim was, in a nutshell, conscious involvement in metacognition, making research question 6, Cognitive development (p12) a focal point of this first cycle. Although there was some concern here that there may be a drift from social constructivism into cognitive constructivism it is important to note Cobb (1994) who questions the necessity to choose between these perspectives, suggesting that they are both a background to the other. This idea was developed by Gergen (1995) who is quite sure about the importance of social interaction and the effect of society but does recognise that individuals 'must come to the world with a preliminary scaffold of

concepts' (p21). Van der Veer and Valsiner (1991) add to this that 'Man masters himself as he mastered nature – that is from the outside' (p212). In other words, the origins of higher psychological processes are to be found in the demonstration of social interaction. They like Gergen (1995) and Rorty (1979) believe that all development is essentially linguistic.

Successes and Difficulties in implementation.

The design of a variety of tasks covering some or all of the learning styles for each activity did not prove easy, but the evidence from this initial study suggested a reasonable success. Using my own ideas and a synthesis of the work done by Kolb (1984), Cummins and Swain (1986), Gardner (1994) and Hall (1995) I created a simple checklist of aspects that could be included to make a task relate more strongly to one learning style or another and used this in the construction of the set of activities for this cycle. Some aspects of the work were very difficult to attack from four different angles, especially where the object was to use similar or in some cases the same information. The use of tasks addressing more than one learning style was, in at least one case, an admission on my part that I could not produce four tasks. The wording of some tasks confused some students and in one case may have led two into the wrong task for them at that time. 'The task was confusing and I had to read it through again to understand' (Int/30 Mar 98) was one comment and another said '...sorting the task out from the information was difficult..' (Field notes, Vol. 1, Mar 98) Whilst I was there on hand to amplify or paraphrase there were some tasks I wanted to be delivered in a solely written mode. One pleasing thing was that in virtually all the cases where I expected students to choose a task relating to their own style the students made that choice and performed well in it, indicating that my structuring of the tasks was on the right lines.

Analysis of data collected.

The diagrammatical representation of the students' route through the work (Figure 4.2) gives a clear indication of the choices they made in terms of

learning styles. All of the activities were designed to address aspects of the element specifications in terms of outcomes, range and implicit understanding. Each of the optional tasks were clearly labeled for one or other of the styles and each student was in possession of an LSI of their own preferred style.

Details of the Learning styles inventory were included earlier and examples of the styles can be found in appendix 12. Every learner has a preferred orientation to work in terms of approach and the nature of the work. In general, accommodators will be more intuitive but may suffer from poor planning, whilst divergers tend to like information, observing and reflecting. Assimilators are those that like to analyse and compare but can be uncreative and convergers are decision makers and planners but can be unfocussed and hasty. A simple test, the Learning Styles Inventory, (LSI) can give an indication of what styles an individual learner prefers. Life, of course, will demand all the styles at some time so the aim of the research was to get the students to take an active personal part in improving those styles they are less disposed towards. The students LSI's can be seen in appendix 12. Most in this group were either accommodators or convergers.

The first two activities offered four tasks using very similar written information on marketing objectives. The third activity was presented in a more numerical mode and offered a choice of four tasks relating to Secondary Data on market research. The third activity brought together two styles in each of two tasks and was offered completely verbally. These tasks required the students to carry out some short qualitative or quantitative research.

The fourth activity was, in effect, a simplified version of the final assignment. Students were required to use a Video (the mode in this case) of a campsite in Spain and from it create a marketing plan using a blank guideline sheet. This was marked and analysed to establish the student's

understanding, accuracy and coverage of all the aspects required. The criteria used to mark it were those found in the unit specifications.

None of these activities were formally assessed, that was part of the final assignment which addressed the Evidence Indicators for Units 3.2/4. The students then began work on this final assignment, a process that involved them analysing what to do, dividing the research work up, collecting data, deciding on such things as marketing objectives and communications then drawing up their own marketing plan. The process of producing the data and the production of the market plan in the final assignment was analysed in terms of Kolb's learning cycle. This analysis was made available to the students so that they could see the relevance of the tasks they had been working on.

The seven students involved were relatively free to make their own choices and as can be seen from the tracking sheet for the group (Figure 4.2) two of them avoided some styles altogether when most did a reasonable job of varying their route. I have included another tracking sheet, figure 4.1 for just one student. This makes it clearer to see the route taken and the choices made. At each stage students were encouraged to look at the tasks and make their choice. On the diagram the task called 'Video' is the one showing the students' performance in the marking plans. The direction of the arrows is an indication of how well they did. Up shows good performance and down not so good. Discussion was affected by both the perception of the task and the coding I had included in the footers to indicate the learning style. The tasks were undertaken in an informal atmosphere, students working around the same group of tables or moving between rooms. They were encouraged to discuss any problems not just with the teacher but with each other, whatever task they were doing. This proved to be a strategy seen by the students as valuable to their understanding. As the activities, most of which were about 30 minutes long, came to a conclusion the groups were encouraged to discuss their findings

with the whole class and myself, offering each other insights into the interesting aspects or difficulties of the tasks, how they went about it and their results or conclusions, (e.g. Rev/17 Mar 98).

Most students took the choices offered seriously, discussing the value of their choice in terms of varying their experience. They recognised that they had preferences and accepted the need to tackle tasks not aligned to their styles in order to develop their learning capacities. The shift from Assimilator to Accommodator by Ky. and Sh. in the first task was interesting in that it showed how easily students are lured into perceived easier options. These particular students had a strong leaning to the Converger style but chose an Assimilator task, which they completed very quickly, having misunderstood the requirements. I allowed them to move over to the other task that matched their style and they completed it well. (Interestingly, after this adjustment it could be seen that all the students' choices in this first set of tasks matched their learning styles) In the discussion at the end of the lesson the group interaction helped to identify the difficulties they had had. 'It was too easy' (Int/30 Mar 98) was in actuality a manifestation of the students not favouring the more analytical nature of the task and working superficially.

Students with similar styles tended to work together or make similar choices, although adherence to varying their style often precluded working with the same person or group of people. In a longer teaching and learning phase it would be possible to encourage more group variety. Two students (Pl. and Rb.) took a very narrow route avoiding some styles altogether and one of these performed poorly in the aspects of the more complex task that he had avoided earlier.

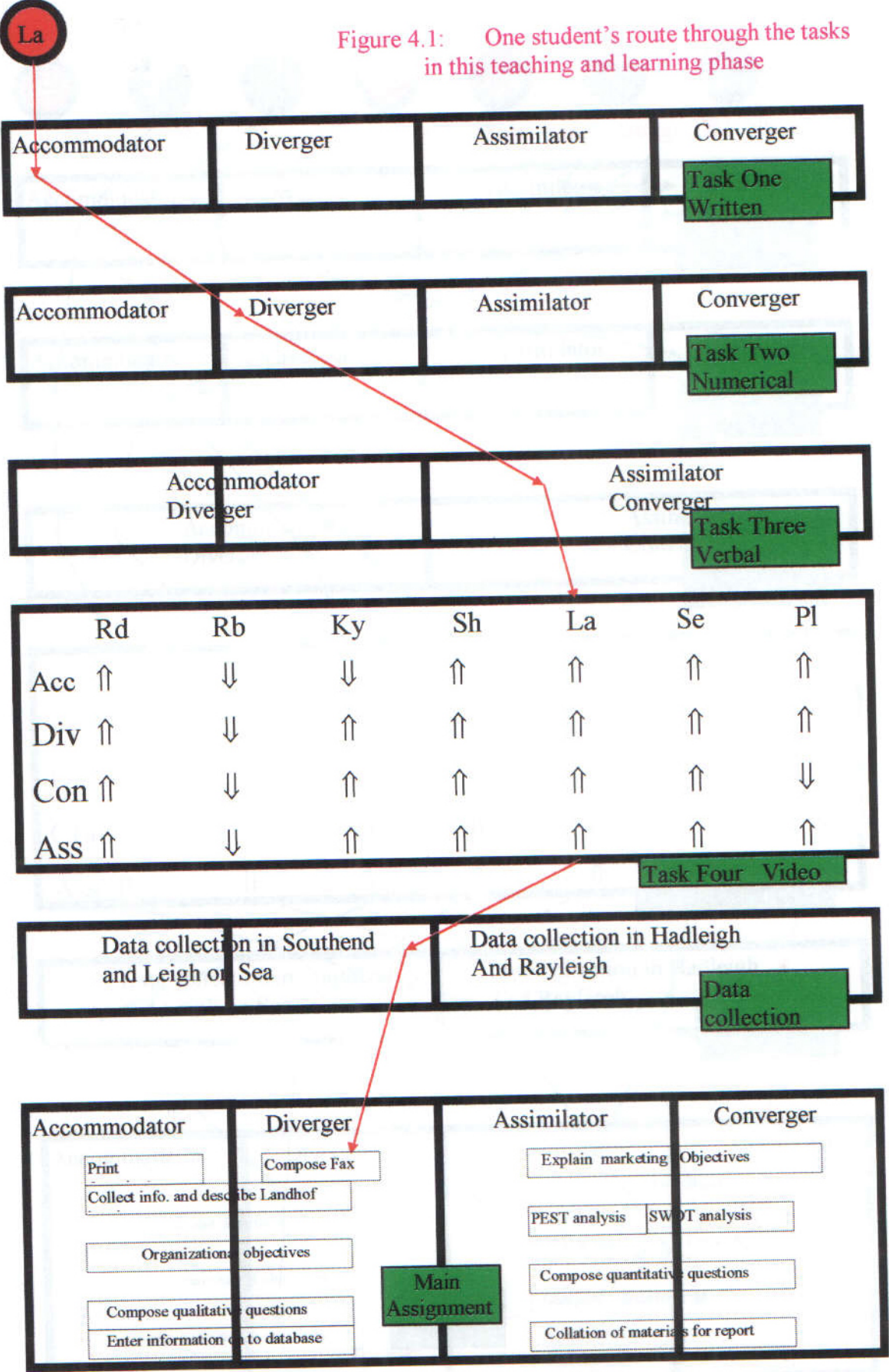
The choice of activities for collecting data for the final assessed piece initially followed a gender split, which was not unexpected. A major part of this was collecting primary data involving going out to ski hire shops and

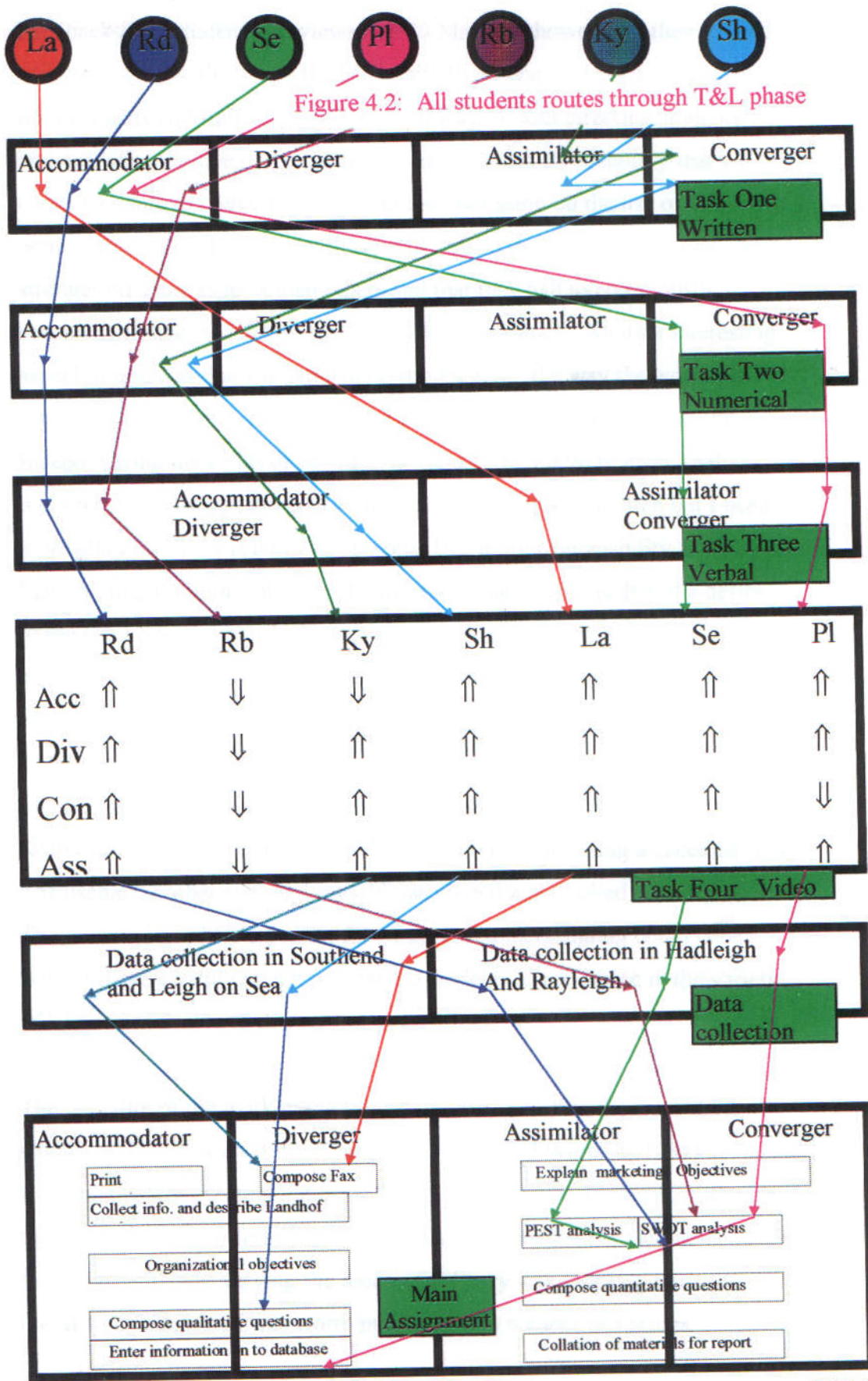
sports centres and students tended to want to go with friends for convenience as much as anything. The indications of choice of work in the rest of the data collection and analysis process suggested that students were willing to take on the demands of other styles.

The construction of the marketing questionnaires and interview schedules led to some very heated debates about the structuring of the questions and the share of the workload. This lasted over several days but was commented on by other staff not associated with GNVQ with regard to the level of commitment shown by the students, (Field notes, Vol.1, Mar 98).

The split was initially gender based but did not remain so. At its height, the division in the group and their motives could be quite clearly related to the tension created by differing learning style characteristics and several strong Accommodators displaying a real passion in wanting to get things done (their way). The problem was eventually resolved with some staff mediation and in true dialectic fashion the group all suggested that after this incident they both understood the work better and were now working more effectively as a group. This incident may well be more to do with group dynamics than anything else but one aspect was apparent. The earlier activity on designing qualitative and quantitative data collection (which was designed to highlight problems they might face with collecting the real data in this assignment) had been one of the most lively, active and for some students the most unsettling activity. The task made them create questionnaires and schedules and apply them (quite deliberately and perhaps a little cruelly, on my part) without piloting. The weakness of their efforts and (some quite savage) feedback from staff and student respondents made them all feel a little exposed. The discussion following that task displayed not just an appreciation of what made a good questionnaire but the obvious desire not to expose themselves like that again. The passion of the debate was then understandable and there were also strong hints that the earlier task had been very successful.

Figure 4.1: One student's route through the tasks in this teaching and learning phase





Feedback from student interviews (Int/30 Mar 98) showed that they reacted very positively to the use of the LSI. Initially, it was perhaps a novelty, but both students and staff felt it was a useful way of both directing students into activities that they would often try to avoid and a vocabulary that we could all relate to. Several students in the discussion on the use of LSI commented on the fact that learning styles made them aware that they were stronger on some aspects than others and that they had to consciously consider the tasks to take on not just work with friends. Another interesting aspect of this was that two students commented on the way the work was organized, suggesting that there were changes I could make to the tasks. Indeed, during the series of activities several revisions were made to the work on student suggestions. Comments such as 'I like research but I need more guidance from you in.....' 'I would like more responsibility...' (Int/30 Mar 98) suggest both a growing awareness of their own needs and a desire to see the work structured in a way that helped them. These are not comments that have been forthcoming from other sixth form students to date even those following similarly structured courses.

My analysis of the final assessment piece enabled me to identify the whole Kolb cycle repeated three times. The importance of devising a checklist that was usable by other staff and myself was crucial and, looked achievable. There was no need for a perfect fit. A general understanding could create tasks that were valid enough to offer the students a real choice in the variety of learning available to them.

The structure of the work in the first cycle related well to the work done in studies by Hedegaard (1990), Campione (1989) and Wertsch (1985) in working towards creating a ZPD in the classroom. The approach, utilizing the learning styles, offering choice, gradually increasing the complexity of the activities in and varying the mode of delivery was a strategy that the initial study suggested was worth pursuing for a number of reasons.

Firstly, students all appreciated the variety that both the mode and the task offered. They all felt the work was fresh and relevant, hopefully leading to improving their performance in the final assessed piece. It bore resemblance to Campione's (1989) 'modeling' and Davydov's (1988) 'transforming' of problems (see Appendix 8). My concerns about needing to vary the mode of delivery for each style proved unfounded. However, this did not mean that varying the mode need be forgotten. When two students were having difficulty with one task it was possible to reroute them on to a more profitable path by offering the task in a more graphical form. Whilst the main activity can be based on one mode there needs to be flexibility in assisting individual students. Gardner (1994) makes the point that offering a task in a different mode is a valuable but often a forgotten strategy.

Secondly, and most excitingly, all of the students, often without prompting pointed to the value of the discussions and interactions with staff and other students *during and after the work*. '*..difficult, needed to talk it through...*'; '*I like getting on but I needed to discuss it to clarify...*' and we got on because we had '*...lots of discussion all the way through.*' and even in the negative where there was a problem when '*communication broke down.*' (Int/30 Mar 98). My own observation supported these comments. *Flashes of conversation across the table, often from individuals working on different tasks*, supplemented by myself or other students helped students clarify issues, adopt a new strategy or come to grips with a concept, taking more control of their learning as suggested by Campione (1989, Wertsch (1985) and Davydov (1988) (appendix 8). On one occasion, one student actually said: '*I didn't understand until we discussed it as a group and I got the concept (!)*' (Int/5 Jan 98) One point was made by a student regarding the heated debate. She suggested that the competitive nature of some of the participants had led to a communications breakdown. Up until that point they had been working together and sharing information and ideas, then all

of a sudden one set of student kept information close to their chests and discussion was stifled.

Thirdly, a point arising from the value the students placed on discussion. My field notes (Vol. 1 Mar 98) over this work indicated a concern that the suggestions, guidance, instructions and responses I gave during these activities needed to be considered carefully in terms of their effectiveness in *encouraging responsibility in learning*. The student responses in interviews and discussion included comments such as: 'better if I look it up myself.' and 'I don't like being told the answer.' (Int/30 Mar 98). This suggested that, in line with Bruner's (1986) ideas, I needed to develop a set of prompts/responses that would encourage students to move on and rely more on themselves and that would help them uncover ideas rather than be told. This set of prompts would be another aspect of the staff development referred to in Research Question 4, (p11). Already, some ideas had developed from the interactions I have been part of during the teaching and others from the literature, Bruner (1986) especially.

Fourthly, at least half the students remarked on the interest they had in a task being directly related to how 'real' it was. (Int/30 Mar 98). In particular, they were more interested in a task when there was a real outcome or they could see the practical application of their ideas. The final assignment for this work was very 'real' in that it involved working with a hotel in Austria, creating a marketing plan and sending it over to the proprietor. It also involved the students maintaining fax, telephone and mail contact throughout the assignment. This was 'real' to the students, but what else they saw as real was activities that feel as if they are going somewhere, not just exercises. The desire to make every learning and assessment phase end in a similarly real assignment is a departmental aim but one that will be difficult to achieve. However, what could be done was to make sure that all the activities and tasks could be seen clearly by the students to relate to the 'big picture' in the developing of their skills and understanding to cope with

the final assignment. All this related to Research Question 1, Business Environment (p10).

Triangulation.

The evidence generated by the initial study was collected in a variety ways. A recording grid was used to track students' work and the decisions they made regarding their choice of tasks. While the initial study was moving along, another member of staff was involved in discussions around the development and use of the tasks and activities, as were the students themselves. Part of the way through the teaching and learning phase one task was marked and analysed. The students' performance (Figure 4.2) was matched against the work and activities. An open forum discussion (Int/30 Mar 98) and a series of individual interviews (Int/28 Mar 98) at the conclusion to this identified some useful areas to pursue and strengthen the validity of chosen data collection methods. Copies of the interview schedule are in appendix 14. The questions were designed to elicit a wide range of comments on the nature of the activities, the student's response to the work and their interaction with other students and staff. At the end of this small study the students faced a Unit assessment, which was written to address Unit 3 Elements 2 and 4 of the Advanced GNVQ Leisure and Tourism and analysed in terms of learning styles and problem solving. I also included in the interview schedule questions designed to stimulate discussion on what tasks the students had elected to undertake in collecting data for the group aspect of the marketing assignment. Students were encouraged to elaborate on their answers and to add to them in the informal open discussion held later. A meeting (Int/5 Mar 98) using the same schedule with the other teacher involved and my own field notes (Vol. 1, Mar 98) offered some triangulation and to them I could add my own reflections, a valuable suggestion from Nixon (1981) and McKernan (1991).

Validity of data collection.

The student-tracking sheet (Figure 4.2) designed for this activity did not really prove very effective. Because of the sheer weight of recording in GNVQ (as noted by Hodgson-Wilson (1997) little is kept normally by way of records outside of the usual portfolio management. However, student progress did need to be tracked in this formative, diagnostic phase. The experience of this first cycle was to suggest keeping fairly bare records, enough to ensure that some grasp was retained over the choice of tasks etc. and the modes, so that a simple mapping would identify a student's route through the work. This could then be supplemented by the students' own records which would be offered as a guidance sheet for the whole teaching and assessment phase. This would also provide the overview missing in this initial study where assignments were being written as the course progressed. The terrain for learning mapped out at the beginning of the phase would also enhance the quality of the students' choices by relating the activities and tasks to the final Element Assignment. It was decided that the record sheet would be similar to the ones piloted except that it would have spaces for noting down reflections (appendix 15) after each activity, this was because several students noted that things had become clearer to them after discussion. One commented 'Sometimes the ideas flow after the group breaks up.' (Int/3 Mar 98) I was conscious of the fact that written reflections could become a chore but by linking this to the evaluation theme in the main assignment I hoped to encourage the students to see this as a doubly valid exercise. Once to help develop their cognitive development and once as a precursor to the assessed evaluation in the final assessment.

The main evaluation instruments for the cognitive, classroom-based research could now be seen in an embryonic form. They consisted of the conceptual mapping of the students' choices: the students' own record and reflection sheets; interviews with staff and students; records of the students' achievement in both the teaching phase activities and the final assignment; any test results and my own field notes.

Revisions in the light of reflection and reconnaissance

Teaching and Learning approaches.

The most neglected area in this first cycle was that of creating the business environment, so it was essential that work was done on this to create the 'culture' that would foster the social constructivist approach in the GNVQ room, the micro-culture as identified earlier.

The learning style inventory proved a useful tool in helping to make students more responsible for their own learning (Research question 6, p12). What was needed for the next stage was to firm up the guidance on writing tasks in line with the styles and staff training to enable them to create and use such tasks. There also needed to be more encouragement for the student to make greater use of this tool.

The teaching and learning phase of the research also needed more development. Whilst the general structure and content appeared to be valid the time spent on the work needed to be longer to encourage more variation in the student groupings. There also needed to be more overt linkage between what the students did as activities and the final requirements of the assignment. The work also needed to be varied more as it was falling into the trap of becoming very similar each time. The micro-culture of the phase needed more consideration earlier. Such things as links with outside organizations, staff placements and a 'real' target needed to be an integral part of the design of the whole teaching and learning phase and the final assignment.

Data collection techniques.

It was clear that all of the instruments and methods used in both collecting and analysing data in the initial study needed improvement. The questions used in the interviews and discussions at the end of the teaching and learning phase needed to be more formalized and aimed much more at

addressing the usefulness of social interaction. The schedules used this time were very weak, reflecting a preoccupation with learning styles. The emphasis needed to be on eliciting from the students the most useful features of interaction and staff mediation.

The recording methods also needed beefing up. The diagrammatic tracking needed improving as did the overall data presentation. An effects matrix was identified for better analysis of the data. Recording by the staff and students needed to fit more usefully into recording for teaching specifications and key skills. (This was not to emerge fully until the final cycle nearly two years later.) A useful text in deciding on how to record and display data was Miles and Huberman (1994, 2nd edn). In order to help refine the categories of data collection, use was made of a conceptually ordered display, which is derived from a cognitive map. This had the advantage of keeping information on a single side for comparative purposes and enable concepts and outcomes relationships to be seen more clearly. It also offered itself well to more sophisticated cognitive map construction that helped in analysing data from later teaching and learning phases.

The students' own records would also need to include a reflective aspect as described above. Linking the activities and student behaviour to performance in the final assignment and test results will also help to address the problem of how to evaluate the success of the research (Research question 7, p12).

CHAPTER FIVE

Second Action Research Cycle 1998-1999

Strategy

The second cycle of action research centred on four main aspects. The first was the now pressing matter of coming to some decision about how to establish a 'business' culture or environment. This meant looking closely at what was meant by the term in both the 'micro-' and 'macro-' versions I defined earlier (chapter one) and creating the desired environment in the GNVQ setting as required by Research Question 1, (p10).

The second aspect was the development of the teaching and learning phase to aid interaction and student development. This entailed identifying the role the teacher should play and defining or suggesting suitable interventions to 'scaffold' students and to encourage them to take on responsibility. This related closely to Research Questions 2,3 and 4, (p11)

The third aspect was related to this as it involved enhancing the staff's understanding of the approaches under development and how they could operate within them. This meant processing the information and ideas and offering it to them in a form that they could understand and make practical use of. (Research Question 5, p11)

The last need was to develop a suitable way of recording student behaviour, attitude and achievement, especially in the teaching and learning phases. This related to Research Question 7, (p12)

The intention across this cycle was to experiment with a number of things to do with all of the aims above and in doing so set out a structure, approach and methodology that could be set in place for the third and final cycle in 1999/2000.

The data collected during this cycle is identified in 'notes on organisation of the database' at the end of the report. It amounted to thirty-five individual student reviews (e.g. Rev/21 Sep 98), twenty one evaluations and grades (Ass/12 Oct 98), seven or so meetings (e.g. Staff/7 Sep 98) and a number of surveys (e.g. Survey/7 Apr 99). Data on local organisations was also collected. (Int/98-00)

Plan

At this point I had not discovered the tranche of business organisation and motivational literature that forms the last part of chapter two. Instead, the approach I was following was one of primary research. This involved identifying and approaching several organisations in the Business and Leisure and Tourism sectors to look at how they interpreted a 'business culture'. I took as a starting point the GNVQ business units on Human Resources (Unit 4) and Behaviour at Work (Unit 11). These units designed by a vocationally orientated body offered a structure and set of questions that enabled me to analyse the organisations. (A copy of the interview schedule is included in appendix 16).

The establishment of a business culture or 'environment' in GNVQ focussed on the micro-culture of the department. A growing understanding of what was required for a business environment allowed me to formulate ways of reproducing this, as near as possible, in the classroom. Its features ranged from the physical layout of the teaching space to ways of addressing each other and work organisation.

The development of the teaching and learning aspects of the course began to focus on the improvement in structuring the work that meant adding variety and varying timings of work, as well as considering appropriate content. It also involved deciding on appropriate interventions and prompts to make the teacher's role a positive one. The work on this aspect also contributed to an understanding of what teachers outside the research would need to know in order to implement the work.

Finding a suitable data-recording format was the great problem across this period of action research. Whilst early approaches were both valid and clearly thought out, they were to fall foul of practicality in being too cumbersome. However, it was from this genesis that final workable methods of data collection were devised for the September 1999 start to the final cycle.

Implementation

Environmental changes.

Using the GNVQ specifications and related texts for Leisure and Tourism Unit 2 (Human Resources in L&T), Business Unit 4 (Human Resources) and Business Unit 11 (Behaviour at work) as a guide, several changes were made to the GNVQ room environment. These were both fragmentary and experimental, but were considered a foundation for more profound changes to come. Changes were made in four areas:

1. Physical changes in the room;
2. Changes that affected relationships between staff and students;
3. Changes that encouraged higher self esteem and self reliance in the students and
4. Changes in terminology.

The room was reorganized to reflect an open plan office, similar to ones observed in many locally sited office based organisations such as Fords, BP, travel agents and administrative centres of local sports centres. This entailed areas that enabled some discrete areas suitable for lectures and group work but with great freedom of movement and common use of computers and IT equipment situated around the edge of the room. For teaching and instruction purposes student groups tended to use the same area of the room (each of these had a whiteboard) but were constantly interacting and moving about when engaged in personal work or research. A large board displaying work in progress, deadlines and responsibilities faced the entrance. This is designed to act like a 'job' board, simulating the way many organisations track work along its various stages of completion. Alongside this was a set of pigeonholes marked up for staff and students.

An attempt was also made to change the way students thought of themselves. GNVQ was to be seen as a small business producing high quality qualifications for the students. The idea was for them to see themselves as (in Business Unit 4 terms) operatives with the staff as managers. Staff were managing the learning process and it was for the students (trainees) to take responsibility for the 'production' of their own high quality qualifications. The induction session in September 1998 tried to stress responsibility, the room being kept tidy for Health and Safety reasons and co-operation and a team approach. A real attempt was made to make students see the staff as working with them rather than as authoritative figures of instruction. First name were used by most but not all staff and students. There was no policy, except what each felt comfortable with.

The idea of self-reliance and self-esteem was much harder to pin down in terms of practicalities than the other changes. Merely telling students they were to develop self-reliance did not achieve much in itself. Physical aspects of the environment such as pigeonholes, however, had an effect on the way students perceived themselves and their responsibility for

completing work. The pigeonhole served as a means of communication, (staff to staff; staff to student and student to student) and it was also a means of collecting assignments. Students could not, for instance, use the excuse of 'not being able to find staff to hand in work' or 'I didn't know about that'. Another strategy was the use of Quality circle-type meetings with the students. These took place, only about once a term (the aim was originally, monthly) for each group. The idea was to create a forum for the students to comment on things that improved or detracted from the quality of their learning. This included environmental, attitudinal items (appendix 17) and led to varied changes being made, from providing more waste paper baskets to redesigning the assessment and recording sheets for assignments to make them more intelligible and user friendly. These meeting served as a sounding board for changes being implemented and the suspicion and indeed hope was that the students would be encouraged to become more critical of the culture offered to them. Staff were also encouraged to put responsibility on the students whenever possible. Telephone calls, faxes, thank you letters, booking accommodation and transport etc., were all given regularly as tasks to students. Students were also issued, after a discussion with them over format, with a small set of personalized business cards.

Vygotsky (1978)'s work suggested the importance of terms in instruction, so an early attempt was made to change the culture in terms of the way the students could talk about it. Thus, students were to become Trainees and staff, Unit managers. The student handbook was the 'trainee handbook' and other terms such as 'work in progress' and 'quality circles' were also introduced.

Changes in teaching and learning approaches.

The main thrust in the autumn 1998 term was to develop lessons and teaching approaches across all of the GNVQ teaching groups I was associated with in Y12 and Y13. This involved Business Unit 4 (Human Resources), Unit 13 (Administrative Operations) and L&T Unit 5 (Business

Systems). Throughout this time various methods of recording events and categories of data collection were tried out.

The pattern developed in the initial study of highlighting different learning styles and trying to make the students aware of the nature of tasks set them and their own strengths and weaknesses was pursued but a number of problems were coming to light. The first was that the 'choosing questions' approach was becoming to 'samey' and altogether too contrived. (Field notes, Vol. 1, Sep 98). On occasions it was necessary to swap students from their original choices in order to balance discussion and this felt as if it was defeating the object. What was needed, amongst other things, was a way of identifying the style of questions, even commercially produced ones quickly and efficiently so that a variety of sources could be used. Also, the students may have been aware of their own learning styles and try to respond to weaknesses etc., but they were not capable of working out for themselves which styles could be associated with which task. This meant that I had to identify them every time. It also meant that the lessons were in danger of sticking to a fairly rigid format of 'input, choose a task, discuss it'. This was addressed after more detailed reading of the experiential learning theories of Kolb (1984) suggested loosening the structure much more and accepting that a teaching and learning phase might vary from one lesson to several days work and that the students needed a simplified way into the concepts they needed to grasp. Information sheets about the tasks were greatly simplified replacing the Accommodator, Diverger, Assimilator and Converger titles with Does/plans; Gathers or uses information; Analyses or compares and Evaluates or chooses. This had the twin advantages of offering a straightforward (if oversimplified) terminology and linking the processes directly to the four GNVQ grading themes. A meeting was held to discuss this (Students/14 Oct 98). Students had for the first time in this action research programme a way of analysing questions, tasks and assignment components for their learning style leaning. It was even

possible to consider the whole process of say, organizing a trip in terms of the Kolb experiential learning cycle. (appendix 18)

It was then important to look at the teacher's role in the teaching and learning phase. This had a twofold benefit in that it made me refer back to aspects of the literature and the general structure I had drawn out of the theorist and mapped (appendix 8). Campione (1989), Feuerstein (1979), Wertsch (1985) and Hedegaarde (1990) amongst others offered suggestions on the sort of prompts that would be most suitable at each stage of the process. In simple terms they were prompts that encouraged an overview and understanding of the task at the beginning; prompts that improved the quality of discussion and helped develop the student's ability to apply concepts; prompts that made the student consider themselves as learners in coping with a task and finally those prompts that helped them reflect on how well they did and how they got to where they were. The importance of seeing a teacher in this light became apparent when it was related to comments by the students in the first cycle. The role was one of facilitator; of reasoner; of prober but not of simply informer. Over the next few months a lot of work was put into developing prompts and questioning in line with the model of teaching devised. Two meetings were used to inform staff. (Staff/20 Mar 99) and (Staff/16 Jun 99). These prompts derived from the work of Feuerstein and Bruner in the main and developed into a bank of comments related to each of the phase's sections. It was also apparent from the literature, and from the results of questioning students in the first cycle that great emphasis needed to be put on the definitions and terms that were needed to understand any work.

An important spin-off of this was the articulation of the teaching and learning phase as containing separate sections. Vygotsky's work was not lost on me here. My construction of the phase in these terms had significantly changed the way I now looked at the process, in the same way Vygotsky states that any tool will change the person using it as much as

what the tool is used on. From that time on I saw the phase as consisting of a period defined by a colleague as: engagement followed by a stage of modeling, reworking and transforming ideas and problems in a social setting; moving on to a stage of taking responsibility and ending with a period of reflection where the trail from first stage to last is considered in order to provide the learner with clues to moving onward. This was formalized in my mind into:

- Engagement
- Complicating
- Taking responsibility
- Reflection
- Improvement

Monitoring

The spring of 1999 marked the summit of attempts to collect in detailed information, as can be seen from the notes on the database. Every quality meeting was recorded, almost every task was analysed in terms of learning styles and just about every question that could be asked regarding students work experience, attitude, attendance and understanding was asked. The teaching and learning phase was also subject to detailed scrutiny using an instrument that appeared to have immense internal validity.

By this time I had drawn together the threads of analysis of the teaching phase and mapped all aspects of it together on one data collection form. This drew together the work, the structure, strategies for delivery, appropriate prompts for the different stages as well as a recording grid to show the students' performance and a section that tracked their use of learning styles. (appendix 19) At the same time students were encouraged to note down aspects of their work on recording or review sheets that identified their styles and related them to aspects of the work, especially the

grading themes. (appendix 20) It can be clearly seen here how the more abstract terms such as 'Converger' were already taking more of a back seat to terms like 'choosing or evaluating'. One group in particular (Y13 Business) was chosen to pilot this instrument. The results of this are commented on in the next section.

Staff and students were, for the first time, consulted about the way the GNVQ environment was being adjusted and their reaction to it. This was done using a questionnaire (appendix 21) and the results are noted in the next section.

Data was also collected from staff in meetings and training sessions, (e.g. Staff/7 Sep 99), regarding their understanding of the processes and ideas being used. There was, at this point, a lot of interest in trying out the ideas, with some staff already involved with me in the shared groups. However, this was also a forum that allowed criticisms to surface that proved invaluable as the year progressed.

Reflection and Reconnaissance

Ideas from new literature.

Towards the end of this cycle my reading led me into the fields of business organisation and motivation. Reading the work of several theorists in this area clarified the ideas for the construction of the business environment that I had been incubating for several months. They offered a valid structure for the whole course and also offered a means of analysing the students' behaviour within that structure. Etzioni (1975) offered a way into considering the atmosphere and the relationships that could exist in a physical layout whilst Garratt's (1987) and Trice and Beyer's (1984) work on developing conditions of work offered a possible checklist for observing behaviour.

Several new and a few older readings were also used to supplement my understanding of the twin thrusts of this study. Older texts used to clarify the bases of social constructivist theory were Passmore (1957), a text looking briefly at the philosophy behind some of the articulated psychological theories and Mead (1934) whose work is at the root of some postmodern social constructivist views. Rudd (1997) and Usher (1992) supplement this. Usher's work is particularly interesting in that his antithesis to the competencies discourse articulates some salient linkages. He describes the use of Competence and Experiential learning Kolb (1985) as two sides of discourse he entitles: Agency-deterministic-Dualism. He then suggests that a postmodern approach sees 'subjectivity as both constructed and constructing,' which has all the hallmarks of a social constructivist view of cognitive development. He goes on to say that the individual is 'situated' so has some control over his development but that he is himself 'situated' historically, contextually and linguistically, which again sits perfectly with a Vygotskian and even view of the importance of culture in cognition, the 'social' in social constructivism.

Possibly the best articulation of the link between social constructivism and cognitive psychology comes from Martin and Sugarman (1996). They describe three interesting ways of looking at this area. The radical social constructionist view is that psychology is almost wholly determined by the socio-cultural allowing little in the way of agency for the individual. The second is the view that the individual arises from the socio-cultural. A third, cognitive constructionist view is that individuals are not reducible to the socio-cultural. This view claims much more agency for individuals. Martin and Sugarman's bridging theory says that the individual is seen to arise from the socio-cultural but is not reducible to it, precisely because he is an individual and not an exact replica. Because individual's development within the social is subject to our unique experiences as an individuals we transcend the social. Thus the individual arises from but is not wholly

determined by the social. This view leaves room for both the cognitive and the social constructivist to see their approaches as complementary rather than dialectic.

Two other texts were also used, one by Abbott (1997) discussing student's views on GNVQ and in particular Key skills and the other by Hausfather (1996) which takes a close look at the role of the instructor and the importance of developing a culture for the creation of a ZPD in cognitive development. Both served to strengthen my belief that the approach I was taking was valid.

Difficulties in implementation.

There were few difficulties as such in this first cycle. The main problems were to do with myself as the researcher coming to terms with the work I was asking the students to do and my own lack of confidence in the work I was presenting to them.

Analysis of data collected.

Synthesis of information from Local organisations. A summary of the information gleaned from several interviews with local Business and Leisure and Tourism organisation revealed some interesting points. (Int/98-00). Several people interviewed came up with the same ideas but articulated in different ways, some deep in the theory (as at BP Amoco) and others more pragmatic. A good example of this was the description of information moving both up and down an organisation. At BP this was described as Reciprocating Feedback and at another as 360-degree appraisal. The main points arising from this survey are noted below.

Names and titles were seen as important because they suggested what was expected from that person and also because they helped the employees develop a perception of themselves.

Clarity of information was regarded a crucial and was achieved through a variety of methods including regular meetings, clearly defined responsibilities and targets or objectives. This meant communication between employee and employee not just employer to employee.

From a motivational point of view it was felt that all employees needed to have a view of the 'big picture'. In the case of the Tourist office of the local authority this could also be achieved by making things 'event driven'. This enabled people to see their role and the expectations over a defined time period. It was also seen as important to provide the employees, not just with clear targets but also with the tools to do the job.

Personal motivation was again seen as important. Employees were all given the opportunity to develop but although it was seen as important for the directors or managers to take an interest in career and personal development it was also clear that they wanted the employer to take responsibility for this. This reflects government's attitude towards up-skilling the population and the concept of *lifelong learning*. As it points out in 'Learning to Succeed', quoted here in a NIACE briefing (1999) under a title of 'The vision. It says of individuals:

'...to take responsibility for their own futures, assisted by advice and support; to improve and to invest in their personal success.'(p3).

Another aspect of this was that such responsibility was felt to give both an intrinsic and extrinsic pride in work. The intrinsic was the pride a person felt in the job that he or she was doing, and the extrinsic was the realisation that if a person were not performing they would be letting fellow employees down not just the company.

The last key point that emerged from this series of interviews was the perceived importance of reflective periods although there was an admission

that the pressures of work and deadlines did not always make it possible, no matter how desirable it actually was. This was also where definitions like reciprocal feedback were discussed. It included, in all the places visited, comments on the importance of good staff relationships in the workplace.

Environmental questionnaire. The staff and students were asked to return a questionnaire on their views of the environment that was developing (Survey/18 Oct 98). A copy of this instrument is included in appendix 21. Just over half the students returned the form and the comments suggested that the environment, if not perfect was moving in the right direction. All bar one student commented in a positive way on the relationships with staff. They felt that expectations were high and that the staff were there for advice. The majority recognised that their ability to work with some degree of independence was important as was flexibility and self-organisation. Several commented on the fact that they were free to make decisions. One student made a perceptive comment on the transition from the 'GCSE' to the 'GNVQ' culture noting that it was difficult to achieve on their own. A number pointed out that although there were opportunities for responsibility they were limited and some students did not rise to it. One staff respondent also commented on this and offered the suggestion that perhaps students could be involved in tidying and resource or money management. Interesting comments when compared to those of the local businesses.

The students were also pleased with the way they worked in teams and were also very aware of the importance of working and communicating with each other as well as the staff. This cropped up in several answers regarding the room layout again confirming the ideas of local organisations.

The GNVQ room itself attracted a variety of comments that were generally good. Most liked the relaxed atmosphere, the ability to mix and the layout that offered some privacy or semi-isolation from others. Generally, it was regarded as well resourced and a large number were very appreciative of the

pigeonholes. Only one student commented positively on the usefulness of the 'Work in progress' board although the staff liked it. Among the negative comments about the room were the ones I knew would be likely to feature: not enough computers; crowded at times; resources running out etc., yet these criticisms often appeared on the same sheet that contained positive comments such as 'good to be able to use computers'.

One re-occurring comment was that the pressure was uneven. There were times when there was not enough work and others when two or three assignments were due in at the same time. This had always been a problem from the outset with GNVQ but it was compounded by another re-occurring comment that Key Skills were a problem.

Key skills were taught in three separate lessons as well as integrated into the general teaching and assignments. The students' displeasure at the arrangements was clear from the comments. They felt that they were badly organised mainly from the point of view that staff were demanding work from them for Key skills assessment when assignments were due in. They quite clearly did not see the 'big picture'. Key skills were three of the fifteen GNVQ units equal to all the others but all that they saw them as was an annoyance. Attendance was also poor in the Key skills lessons.

Several students commented positively on the 'business-like' or 'working' environment and this was underlined by the staff working in the room. The most common answer on how to make the room more 'business-like' was 'a coffee machine'. Whilst on a tour around the local BP refinery offices I was interested to discover that the positioning of the coffee machines featured in the company's decisions on office structuring. There was a recognition that a lot of important discussion went on at the 'waterhole'. Needless to say, I did not dismiss the idea of a coffee area.

Results from quality circle meetings. During this cycle, I was also conducting quality meetings with the new year 12 students. Response to these was good as the students saw them as an opportunity to discuss practical issues. A copy of an agenda (appendix 17) was usually given to the students beforehand so that they had an idea what was going on. All the headings were designed to be positive and to make the students consider their own learning and what might help or hinder. A number of important points came out of these meetings. Some had already come to light in the questionnaire such as overload of work at certain times and the problems with key skills. In terms of the room, I discovered that some quite simple things were bothering the students. One was a lack of waste bins and another was the absence of mouse mats, making mouse use difficult. Again the question of a coffee area and machine came up and this was discussed, not just from the point of view of location but also in terms of organisation and managing. Finally, for me most excitingly at that point was an expressed dissatisfaction with the assignment booklet that drew together the paperwork for the assignments. The main concern was to do with layout and practical use. I noted the problems and set about redesigning the booklet ready for the next reprint, a month or so away.

After the meetings I circulated minutes and spelt out possible solutions. I was pleased to see how avidly these were read.

Attitude, attendance survey, work experience, grades. The attitude survey (appendix 22) used in April 1999 (Survey/7 Apr 99) was aimed at seeing how the staff felt the students were performing. I coded the responses to aspects of the learning styles as well as including more tangible elements such as attendance and punctuality. The survey instrument was not without its weaknesses. Several categories were fairly subjective and one colleague questioned the need to have a six-point scale suggesting that 'occasionally' and 'sometimes' were not easily distinguishable. One result of this was that different staff were obviously harsher in their estimations than others.

Colour coding the responses enabled me to see this variation quite clearly and make reasonable allowances for it. The coding against the styles was, with this first instrument, uneven. It gave me little information other than in general it reinforced the individual styles. Students generally scored highly in areas relating to their own style and where this was not the case it was clear from the general quality of the work that that student was underachieving. There was a definite gender split too. Categories such as Willing to do more, stretch themselves, invariably showed girls scoring more highly than boys, this split often, but not always followed a style difference as well. Lack of creativity and taking the lead were also weak in many students, even those whose styles suggested they should be good at it. Noticeable too, was that many of the accommodators tended not to take care over the information they collected and across a the whole span there was a lot less care given to clarifying the work than would be desirable. Such things as attendance and punctuality appeared to be good.

At this time, the students also went on work experience. Here was an opportunity to see what others thought of their attitude to the work and their social and team working skills that we had worked on since September. Data was taken from the TRIDENT work experience forms sent out as part of the usual evaluation system. They provided comments on all the relevant aspects of work experience and left room for a comment on general aspects. Nearly all of the students performed well and comments were made by several employers on the student's 'professional attitude' and willingness to work on their own initiative. Positive comments were also made on technical skills and the student's ability to take on responsibility and get involved in teamwork. It was not possible to say if this could be attributable to the action research alone. All the students who took part in the work experience were involved in the research, so there was no control group either on a GNVQ course or A level course, that could be considered. No positive claims could be made from this.

Results from data collected from student in teaching and learning situations.

The 'offering choices' structure was forcing the students to vary their styles of learning over this cycle. Interestingly virtually all the students in this small cohort were either accommodators or convergers which meant that their preferences were for getting on with the work rather than reflecting or thinking too deeply. The results of observation and records kept on choices and reflection on those reasons unearthed some interesting points.

The students did, on occasions show an understanding of the different styles they were facing. This was often through a recognition that what was in front of them was a 'difficult' task. Some wanted to opt out. One student in his self-diagnosis at the end of one session professed the intention of only tackling tasks that were related to his style. Others saw the challenge and benefit. At the end of the same session another noted that he needed to vary his style. This process of self diagnosis gradually took on more importance as the rest of the detailed information collected in was often too distracting for a supposedly, interacting staff member.

Self diagnosis of problems encountered in the task or activity proved very enlightening both for the students and myself. Comments on difficulties or what needed to be improved were related very clearly to the weakest areas in the learning style profile. For example, in one Y13 business group, 'I need to discuss more to get ideas' was a converger's recognition that he had a weakness in the diverger quadrant; and 'look at the question in more depth' (Rev/18 Jan 99) was a converger's weakness in the assimilator segment. There was also the evidence from observation to show that understanding was not a static thing that could be pinned down to one part of the teaching and learning phase. Often students would note how their understanding grew. 'it took me a while to understand the task' and '...didn't understand it at first, it became clear as we went through it'. (Rev/18 Jan 99).

The Year 12 business group was working on Human Resources and here I was using a form (appendix 23) which I had used since the beginning of the research, to record ideas on varying the work and deciding on useful prompts and interventions. Here, as with Year 13, I was constantly uncovering difficulties in understanding or performance that related to styles. One very bright student and interestingly, one of the few assimilators in that year made a mess of trying to explain 'how to motivate staff'. (Rev/1 Oct 98). Her interpretation of 'how' was actually 'why', which fitted in with her propensity to theorize, when what was wanted was a more accommodator response of dealing with the practicalities. The resolution to this problem came with both the interactions she was having with other students discussing the problem and a simple prompt from me as the teacher, both elements of scaffolding across her zone of proximal development.

Several instances such as this involving students' interaction and prompting, reinforced the strategy of encouraging cross-fertilization of ideas in structured, demanding task situations Hedegaarde (1990)

Triangulation.

This cycle saw the first attempts to triangulate both the data on the environment and the data on teaching and learning. Using a joint staff/student survey (Survey/18 Oct 98) and the minutes from quality meetings I was able to collect in the views of staff and students using the GNVQ room. The attitude surveys, grades, key skills and work experience reports gave some indication of how the students were developing within the culture.

Validity of data collected.

The data collected to try to evaluate how much the environment was playing a part in the students' development seemed very untidy, yet it contained all the relevant elements. The views of staff and students were collected in

both a questionnaire format (Survey/18 Oct 98) and more discursive forums such as meetings (Staff/21 Jan 99) allowing general views as well as some elaboration to happen.

The data collected on the teaching, learning and assessment phases was valid, but the instrument was far too cumbersome, even in its simplified form (appendix 24). An instrument was required that was capable of collecting the identified information without interfering with the teaching. There would, no doubt, have to be a compromise.

The one aspect of data collection that had not been addressed was a way of determining how, if at all, the environment impacted on the teaching and learning. To some degree this could be hinted at by studying the staff and student's views and perceptions, but I felt it would be useful if there were some more direct observational link. This was to be the major new data collection element in the final cycle.

Revisions in the light of reflection and reconnaissance

Environment.

I realized that September 1999 had to begin with the business environment as fully in place as possible. There could be no partial construction as this would be the final cycle. I therefore had to identify the aspects I felt necessary and put them in place.

Teaching, Learning and Assessment.

Using the experience of the two previous cycles, sets of lessons needed to be constructed that retained the elements of choice and recognition of learning styles. It was also important to widen some phases across lessons and concentrate more on enabling the students to identify the type of work they were facing, to reflect and make use of the lessons they learned. The

work needed to be relevant to the real world and related to the final assignment

Alongside this there was an obvious need to make the documentation used for both guidance and recording integrated into the day to day work to avoid the heavy and possibly self defeating load of interviews and questionnaires.

Data collection techniques.

Data collection needed to be rationalized. The previous two cycles had looked at aspects of the teaching and learning phase in isolation. The untidiness of data from the previous cycles suggested the need for a more uniform approach. Data needed to be collected on how the students were developing, their interactions, their ability to take on responsibility, their attitudes and their achievements in assignments, grading and key skills. Data also needed to be collected on user's perception of the environment and on the perceived connection between the environment and the student's behaviour. This last one would lend itself to observation.

The research planning went through something of a crisis in the summer of 1999. As described in the next chapter, some of the biggest problems were just raising their head and, added to that, I was experiencing a lack of confidence in the data collection approaches. The methods of collection were too cumbersome and threatening to damage the teaching and I could see no way through. I decided to take advice from Schon and give myself some time for reflection. This period saw me re-reading field notes and bending the ear of several colleagues. After approaching a week of what seemed like inactivity, but was in reality a personal journey across my own Zone of Proximal Development, one particular provided me with the inspiration I needed. In my desire to study the process I had missed the point that the process itself could be addressed by looking at what the students were able to take forward from each teaching and learning phase. I had already realized that the students were in a process of self-diagnosis in

being taught this way. The social interaction and remodeling led to a realisation by them of what they needed to do or how they needed to behave. The answer to collecting data on this aspect of the research was to analyse their perception of the improvements they felt that they could make. *This vastly reduced the data collection and freed me to teach and interact, as I knew I should.* It also led to a redesign of the assignment paperwork to add prompts into the evaluation guidelines, *making the data collection part and parcel of the assessment.*

CHAPTER SIX

Third Action Research Cycle 1999-2000

In order to describe and evaluate the last cycle of action research effectively, I will not keep rigidly to the structure set out in the previous cycles. Although all the elements will still be present, it makes sense to order them differently to allow for a final analysis of the data collected.

Strategy and Plan for the final cycle

The plan was to have in place all the elements of the research, including a valid methodology, ready for a 'fresh' start in September 1999. This meant that throughout the summer of 1999 aspects of the work and environment needed to be put in place and resources, materials, guidelines, etc. designed and produced.

The physical environment of the room was, adapted, altered and improved in consultation with staff and using input from student quality circles. Other non-physical aspects were also devised, such as an induction programme that supported the 'business-like' approach to the subjects.

Documentation to support the culture and data collection was produced for staff and students. This involved, amongst other things, rewriting the handbook and redesigning assessment and assignment sheets.

The teaching and learning phase materials, schemes of work and lesson plans were redesigned to incorporate the SECTRI (appendix 25) design

Data collection instruments were redesigned and a plan of application was worked out. For the teaching and learning aspect, this involved initial assessments of style, review sheets, interview schedules and observational recording sheets. For the environmental aspect, this involved some of the same materials but also questionnaires for completion by others using the room as well.

Staff familiarization and training (Staff/16 Jun 99) also took place during the summer in preparation for the September start. A crucial part of this was the design of guidance and prompt sheets.

Difficulties encountered

At this point it is sensible to note some of the difficulties that arose in implementing the final cycle of research and to discuss the effects.

Summer 1999 turned out to be a difficult term for the staff at my institution. The uncertainty about nationwide curriculum and examination changes scheduled for September 2000 was causing the management to consider changes in the school day, the curriculum balance, the make-up of the management team and individuals' teaching commitments. Alongside this was the government's decision to change the funding arrangement for sixth forms. School sixth forms were now to come under the Further Education Funding Council (FEFC) and this meant pressure to increase groups and efficiency. The institution's sixth form, although growing, was still not profitable at this point and the vocational courses, along with most in the county, were the least viable of all.

It is interesting to reflect here, how the macro-culture of the economy was affecting the institution. Winter's (1995 and Esland's (1996) views on managerialism can clearly be seen here. The agenda of FEFC, which was

basically economic, was going to have a significant effect on the provision of vocational courses, which were in themselves desired by the political agenda of a government that had created the FEFC.

For a long time over this period I, like others, was involved in heavy marketing in order to maintain the existence of my courses. Thus it was difficult to put in the training and familiarization with the research that I had hoped to, and even when it was put, in most staff, who were in other more established curriculum areas did not see this as a high priority. The GNVQ department had by that time become well structured and there was a comfort in this for many staff. At least they knew what was happening in GNVQ and could rely on that for the next year. My request to take on board a whole new approach was not what was wanted.

The whole situation was complicated even more by the announcement in the summer that the institution would be subject to an Ofsted inspection in November 1999. This was right in the middle of the time I had allocated for the heaviest data collection. *I* looked on this as a positive thing because it offered another method of evaluating how well the research was going, an extra triangulation with some official 'credibility.' However, to the rest of my staff it also meant pressure in their other departments.

Other problems were to follow. During the summer it was felt that, on the strength of the numbers opting, one of the new GNVQ groups would be too small to be viable. After discussions with the deputy who compiled the timetable I was able to run this course on the understanding that there would be some joint Year 12 and Year 13 teaching to keep down costs. As I suspected, when the courses started in September 1999, there were sufficient students to warrant the course but it meant extra strain on GNVQ staff and, for a while, on some resources.

As the new academic year began two more things happened to make the start difficult. The first was some timetabling conflicts that made it difficult for some GNVQ students to do A level courses as well. This took up a lot of time and was a source of some disillusion and attrition amongst the new Year 12 GNVQ cohort. The second was the beginning of a long-term absence of one of the key GNVQ staff. The difficulty in covering her expertise led to the use of temporary cover and a reorganization of the timetable. This was far from desirable and led in turn to discontent and general difficulties with added pressure on staff and some negative effects on student motivation. The particular group in question did not feature in the final research but dealing with the problems created by this situation took up a lot of staff time.

Implementation

Environment



Figure 6.1

Business Year 13 planning
the Sixth form leaving
party.

As the new environment was being constructed I found this quote by Handy and Aitken (1986) which struck a cord.

‘You cannot be a child in a classroom or a teacher in a school without carrying with you a psychological contract which is a blend of your view of what motivates you in your role in the group and your estimate of what the other side expects. To be effective...you need to be aware of what goes into these psychological contracts.’
(p48)

In September 1999 the new GNVQ students and the veterans from Y13 found themselves in the GNVQ centre. Etzioni’s (1964) view of an organisation had been taken to heart:

‘Organisations are social units (or human groupings) deliberately constructed and reconstructed to seek specific goals.’

The main room for GNVQ teaching, which was now the ‘GNVQ Centre’, was fitted out with computers around the walls, printers, and a scanner and work areas, each with a whiteboard, separated by room dividers or filing cabinets. *A work-in-progress board and set of pigeonholes faced the main door.* The room owed its design to the research carried out amongst local businesses and the literature consulted in my study of organisational development and motivation. The intention was to allow the sort of ease of communication that Handy (1985b) promoted. Outside the room, in a small reception area, were soft chairs, a coffee table and a coffee machine that from about October onwards was run by the students, for use by staff and other students. In busy times the GNVQ groups had access to a computer suite next door and several satellite rooms located on the adjacent corridor and next floor. Labeling and notices around the room had been rewritten or formatted to reflect the ‘office’ atmosphere of a business. The usual ‘no eating’ type signs were replaced by notices reminding the students of the

Health and Safety implications of food, coats and unwieldy bags in an IT based environment. As Garratt (1987) pointed out

‘..first we shape our buildings, then they shape us.’

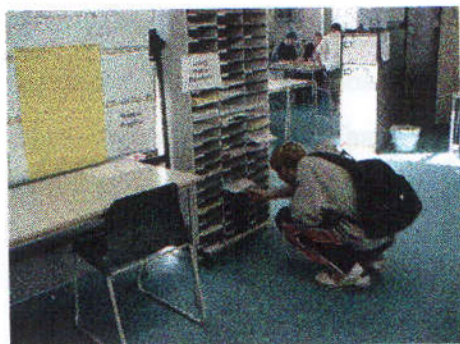


Figure 6.2

A year 13 Leisure and Tourism student making use of the pigeon-holes.

Figure 6.3

A smaller work area. Each area is equipped with a whiteboard.



The induction that took place over the first week of the course emphasized the nature of the GNVQ courses as business related, as it stated on the second page of the new departmental handbook

‘1.1.2 The GNVQ programmes are seen as a business, a company whose aim is to generate the best possible qualifications for the students who make up the bulk of its personnel. Like any good company it needs professionalism and a desire on the part of the personnel to achieve its objectives. If you care about how well you do and strive to develop yourself further in practical as well as academic ways then GNVQ has the programmes for you.’

The induction was used to familiarize the students with the GNVQ work regime, in particular the importance of self-motivation and independent work. The induction was also used to introduce to the students a basic understanding of learning styles and the importance of interacting with each other and other staff members. Both Wertsch's (1985 and Campione's (1989) ideas were drawn on here, in using this period as a time to overcome the differences in definitions of the course that were likely to exist between teacher's and students. Whatever preconceptions they brought with them had to be gently modified to make them receptive to the new regime they were to become part of. A carefully planned week introduced the students to all the elements of grading, the use of work experience, skills to do with research, self-evaluation and organisation and key skills within a research project. They were given instruction and information on the things they needed prior to using them and they were also given time to reflect on how well they were coping, what they were learning and how it all related to the final outcomes. By the end of the week they had planned and carried out a small research assignment, presented the data on a computer package and given a presentation on their findings. One of the most important aspects of this, from the staff's point of view, was that they learned the importance of working together and treating the staff as a resource. In Chapter 7 I will discuss the feedback data from this section. It also meant that they had been initiated into the organization's rituals in the words of Trice and Beyer (1984).



Figure 6.4

Year 12 Leisure and
Tourism students during an
assignment completion
period.

Whilst this was ongoing, the Year 13 students identified for the research that year were not forgotten. They too were introduced to the regime by way of a reminder of the previous year and the changes introduced from that September. Both years had the new handbook, which had been prepared to read more like a contract of employment than school department guidelines. Again, from the readings Etzioni (1975) the handbook reflected the approach taken by a business. It was also a way of involving the students in the 'shared beliefs' of the organisation that was GNVQ. A look at the content page will give a good idea of what I mean:

Figure 6.5

The Entrance to the GNVQ centre, showing the telephone and the rest area outside the main room.



Figure 6.6

Portfolio management.

‘Contents Page

1.0	Introduction
2.0	GNVQs at KJ
3.0	Personal details
4.0	Personnel in GNVQ at KJ
5.0	Accommodation
6.0	Learning Contract with KJ
6.1	Title Programme Manager (GNVQ)
6.2	Title Unit Manager (GNVQ)
6.3	Title Student (GNVQ)
6.4	Normal Working Hours
6.5	Holiday Entitlement
6.6	Sickness and Injury
6.7	Disciplinary procedures
6.8	Grievance and appeal procedures
6.9	Health and Safety at work
6.10	Equal Opportunities policy
7.0	Reporting and Appraisal
8.0	Quality Assurance
	<ul style="list-style-type: none">• Portfolio management sheets• Key skills lists, logs and checklist• Guidelines• Learning styles question sheet• Example Assignment booklet’

Figure 6.7: Contents page from Student Handbook 1999/2000

The importance of terms and titles, highlighted by the discussions with local organisations was reflected in the way the usual aspects of attendance and reports were described. Terms such as ‘Holiday Entitlement’ and

‘Reporting and Appraisal’ became the accepted way of discussing ‘days off’ and ‘reports’.

Another important point here was that the role of staff and students was clearly defined for each to see. Handy (1985b) made it clear that the nature of the organization’s culture needed to be clear and that informed those involved what relationships were expected. The term ‘trainee’ never worked well so ‘student’ was retained but much more of an effort was put into using the term ‘Unit Manager’. This became much more accepted as it was often more appealing, on say, work experience for a student to be able to talk about his or her Unit manager rather than ‘teacher’ which still had a school ring to it. This term was carefully applied wherever it could, so that for instance, the front covers of the assignment booklets referred to Unit manager (appendix 26). The roles of all staff and students involved was identified in section 4 of the handbook

‘4.0 Personnel in GNVQ at KJ

4.1 Programme Managers: This person is directly responsible for the team of Unit Managers delivering the GNVQ

4.2 Unit Managers: GNVQ staff have responsibility for managing various units of a GNVQ programme. They will instruct you in the theory, design assignments and assess the work that you produce. They will also be there to give advice and assistance. Any member of the GNVQ staff will be happy to help you, do not feel that you can only talk to staff on your programme

Students: Students are as much a part of the personnel as the staff managing the programmes. It is the work put in by the students that results in the completion of the GNVQ and possible grades. Remember too, that students

further downstream in the GNVQ may also be able to help more recent students'

Figure 6.8: Extract from GNVQ Student Handbook 1999/2000

Garrett (1987) was clear on the point that the Director's (in this case Unit Managers) job needed to be seen by the staff (or students and assessors) as 'an organisational problem solving process'. Handy (1985b) and others had made the point that communication was an essential aspect of the business environment. This was addressed in several in basically five ways. Four were noted on page 11 of the handbook:

'5.3 Communication amongst Personnel and with people outside GNVQ: Open communication is maintained through a number of methods

- Firstly and most importantly, face to face communication. Any unit and programme managers, and indeed, older students will be happy to discuss things or answer questions.
- A telephone with outside line is installed in S14
- Each student has email facilities and internet access
- Each member of the GNVQ personnel has an allocated pigeonhole in S14. This is used for staff to staff; pupil to staff; and pupil to pupil communication. It is also used for handing in completed assignments in the event of a unit manager not being available.'

Figure 6.9: Extract from GNVQ Student Handbook 1999/2000

The fifth method was to be the series of quality meetings planned over that term. These were to act as both feedback for improvements and a method of increasing the feeling of belonging to the 'company'. Along with Handy's

(1985a) suggestions these followed his 4 'P's format. They always included discussions on Progress, Policy, People and Points for action.

One concern picked up from the students in the previous cycles was the position of key skills within the teaching and learning programme. From the beginning of GNVQ teaching in the school key skills had been taught in an integrated fashion but with a workshop backup. This amounted to one lesson a week for communication, application of number and Information Technology, which were taught by specialists. These had always been poorly attended and not seen as important by the students. This had led to general difficulties and constant complaints by the staff involved. As part of the move to make all of the course more relevant the key skills were linked to acquisition of additional GNVQ units and the number of staff involved in delivery was cut down and limited where possible and practical to staff who knew what GNVQ was all about. The work could then be tailored more to the units being delivered and any supplementary work necessary to cover awkward requirements were delivered in a way that made them relevant.

One good example was the work on spreadsheets. This was used to introduce the students to basic skills in design, good practice in using them and some more taxing work such as writing macros and creating automatic routines. The approach here was to help the students design a timesheet that could be used to track their use of time across an assignment and help them *reflect on the balance of their work*.

Staff information and awareness

By the middle of July 1999 it became obvious that the involvement of other staff was going to be more limited. Most of them felt confident enough to apply the teaching model, that by that time was established, but in the face of an inspection did not want to stray too far from their already planned

work. Together we identified aspects of the topics they taught that would fit with the approaches and decided to collect only the data that would present itself naturally in their groups. This, I decided was adequate as much of the assessment and assignment paperwork had now been redesigned to encourage responses that could be analysed. It also fitted with my ethical concerns over being a supportive head of department at a time of great stress.

However, it was still incumbent upon me to provide suitable information to support *their understanding of the teaching model*. Work from the second cycle (see chapter 5) and the experience of people like Feuerstein (1979) made it clear that any guidelines and approaches needed to be simple and clear or they would not be applied and not understood. I had also taken time during the summer of 1999 to look back over field notes and the discussions I had had with several staff and reflect on them. It became clear to me that the main thing I needed to see from the students as evidence of some success in the teaching and learning phase was their ability to take forward what they had learned from the engagement, remodeling and taking responsibility structure.

The teaching and learning phase was offered in a graphical form that brought together all the aspects of the teaching approach, the student's role and the teacher's role and suggestions for prompts and interventions. The laminated booklet given to the staff is shown in appendix 25. The structure was given the acronym *SECTRI* in order to help remember the various stages. This can be seen as being derived from the mapping model (appendix 8) using the work of Vygotsky (1978), Hedegaarde (1990) and others and incorporating the learning styles Kolb (1984). The interesting point here is that from theoretical point of view it sits well with the social-constructionism discussions of Prawat (1996) and Cobb (1994) and it placed an emphasis on the improvements take forward. The prompts in the central section were a constant reminder to myself and staff of the need for the

teacher to scaffold and not simply give answers. Complicating, remodeling and redefining to make the students apply ideas and try out approaches was crucial, as was the need to encourage discussion. The improvements section was amplified for the staff member so that responses could serve not just the student, but the data collection built in.

A second visual form was included for both the staff and the students. This one related more closely to the learning styles, to the characteristics of a student with a particular style and to the sorts of tasks that were related to that style. This was not meant to be definitive but a general guideline. I recognised that some accuracy needed to be sacrificed for ease of use. In the end it did not matter a great deal if there was some overlap. Indeed, discussions on the sort of style a task was, often led the students into the sort of deep discussions and interactions desired by this approach. It was enough that the chart was usable. All students and staff were given a copy of this and other copies were laminated and put up around the room for easy reference. A copy of this is included in appendix 25 (p3)

This sheet has several purposes. The first was as a crib and record sheet for staff. The guidelines here offered an easy reference to what questions and activities were related to what style and the staff were encourage to put in students names in the outer circle to give them a ready reference. There was also a reminder of the modes of delivery and how they related to key skills. The second purpose was to make the students more aware of their own styles and how they related to the tasks they were being asked to perform and in the long run to the grading criteria, which were identified in the inner circle.

An example of a teaching, learning and assessment phase in the final action research cycle.

The last cycle lasted from September 1999 until Easter 2000. In total, across years 12 and 13, eleven elements across four units in both business and Leisure and Tourism GNVQs were used for the final sample. As an example of the approach taken I will use element one of unit one in Leisure and Tourism, which was delivered to the new year 12 group immediately after the induction.

Using the SECTRI structure to help identify what was happening the pattern of lessons went as follows:

The students were introduced to their styles and the significance of this early in the induction. The grid in the handbook reinforced the nature of the styles. Care was taken to impress on the students the fact that styles were not fixed. Preferences could change and the recognition of a style was an indication of what they might find difficult or easy in their work. The encouragement was then to address this challenge and strive to improve on weaker styles. This comprised of the [S] in the SECTRI

The opening lesson of this phase began with a discussion with the students as to the requirements of the first assignment. The first point covered was the relevance to them as possible employees in that sector.

The first element of this unit required the students to produce a report on the scale and structure of the UK leisure and tourist industry. The students were encouraged to look at the requirements of the evidence indicators in terms of the work they would need to undertake and how that related to their styles. It also identified the key skills they would need to demonstrate and finally identified and made clear the specialist terms they would come across. As can be seen from the copy of the sheet used in this lesson

(appendix 27) a lot of the work was in the form of prompts and general questions that were used to stimulate discussion. This discussion identified the need to explain many more terms than those identified at the bottom, for instance a decision had to be made as to what constituted an example. Was it a mere passing reference or something more substantial that could be used to show understanding of theory? At salient points in the lesson I complicated the situation or offered a different way of approaching the work. This had the effect of forcing the students to think, reconsider and to develop ideas, helping, along with the group interaction, to scaffold individuals across the ZPD, watching for the flashes of enlightenment and 'ah yes' expressions and exclamations I had witnessed often over the last few years since the pilot study. This was the [C] complicating and the [T] taking responsibility section. (Examples: Rev/15 Sep 99; Rev/21 Sep 99; Rev/28 Sep 99)

At the end of this session, as at the end of any task the students were asked to consider their concerns and any ideas about how they might deal with aspects of the work they saw as possibly causing difficulty. This was the [R] and [I] in action. Their ideas elicited on paper and individually here were recorded and referred to at the beginning of the next lesson. A pattern emerged of constantly quizzing the students as to the possible pitfalls and difficulties they foresaw alongside the usual encouragement of strengths. These responses were elicited in a variety of forms, verbally, in writing and in group situations.

The lessons progressed over the weeks with each section of work using the stages of SECTRI. Care was taken to vary the work in terms of mode, so that instruction were given in verbal and written forms and activities were offered in numerical, visual and diagrammatical form. The choice of using styles was still included but varied from a simple choice of questions and activities to identifying the style of textbook questions and the variations of approaches to work that could result in the development of different styles.

Some activities recognised and used their preferred style whilst others required them to use the very style they tried hardest to avoid. The use and demonstration of key skills was integral to the work, so that the task on assessing the scale of the industries offered activities that both developed number handling and presentational skills while at the same time providing them with a tool to use in the final assignment.

Whilst the teaching and learning progressed, the students were also introduced to the use of the environment that had been constructed to support them. The room offered ongoing, relevant use of equipment and communication. If a telephone call needed to be made it was a student who made it. If research was needed the students were shown how to do it then required to go and do it. Steadily they became confident with the use of the room and its resources. They were encouraged too, to use the skills of the staff and others, so that interaction became an expected behaviour.

As the teaching and learning phase drew to a close the students were prepared for the completion of their element assignment. The last few lessons of the first stage were used to analyse the task, which was now presented in a more elaborate form, incorporating the full evidence indicator requirements, including how it related to the range and the key skills. The students were encouraged to reflect on the difficulties and successes they had and to relate these to the task in front of them. They were then required to consider what they would be weakest on and how best they could overcome these weaknesses. One major aspect of this was identifying the key words in the assignment that related that work to a style, for instance: 'describe, evaluate and compare'. Review dates and a final hand in date was set and the students allowed to begin work on the assignment proper. The students had developed individual plans of action to carry them over the seven or so lessons they would have on the assignment.

Over this 'assignment completion' period, I observed them with the aid of an observation schedule and a coding developed from the readings on work organisation and social constructivism (Appendix 10). I was also 'on call' and responded where necessary to requests for guidance, help, monitoring or instruction on the technology. A good example of the way this worked was when one student decided he wanted to use the scanner and asked me to demonstrate. I did so, then suggested to the others that maybe I should do a session for the whole group.

At intervals, I reviewed the ongoing work either as individuals or as groups. One of these group sessions was, in fact, observed by an Ofsted inspector (Ofsted/15 Nov 99). These reviews offered an opportunity to collect data as well as advise the students.

Approaching the final date the students were reminded once more of the requirements of the evidence indicator and eventually the work was handed in. The guidelines offered to the students for completing the evaluation included two sections, both marked out to help with analysis. They read:

'Comment on:

How understanding of your learning style helped you tackle the task

Which parts of the teaching phase of the work helped you and why

Which parts of the work you found particularly difficult and why'

'What have you learned about the way you work or learn and how will that affect the way you will approach work in the future?'

Figure 6.10: Detail from GNVQ Assignment paperwork

The students' work, their performance against grading criteria and key skills, their behaviour in the assignment phase and their evaluations offered the evidence to evaluate how successful the research had been.

CHAPTER SEVEN

Analysis of data and findings

Notes on Evaluation of data

In analysing the data and evaluating the success or otherwise of the research (Research Question 7, p12) I am very aware of the lack of a control group and in effect, my role as both judge and jury. Earlier in this report I explained that notes on the organisation of the database were put in a section at the end. I would like to elaborate on this now.

In order to offer some transparency to the research I have attempted to do two things.

Firstly, all the groups involved in each action research cycle and the main data collection events have been coded and offered in the 'Notes on organisation of the database' at the end of the report. Not all of this is referred to in the text but it has all been drawn upon in the course of the analysis. The referencing to the database that does appear in the text is not intended to be exhaustive, as this would interrupt the flow of the discussion too much. It will, I hope, give an indication of the significance of conclusions drawn in terms of the 'weight' of the evidence. I recognise that all of the groups are small (usually 7 or 8 students) and that it is not possible to generalize or to extrapolate too far, however, the idea of action research is to draw conclusions in order to improve understanding and practice within the immediate context and that is certainly possible.

Secondly, I have tried to offer evidence and analysis of data relevant to the area under discussion. At the beginning of each section I will identify the *main elements of data collection*. In most cases, this will start with more quantifiable aspects such as observation records, summaries of responses

and analysis of grades etc. then support claims with quotes or individual examples.

The Business Environment (Research Question 1)

The first research question (p10) was concerned with how best to create an environment relevant to the students' future employment and a finding a method of shaping the way they react to the practice, attitudes and environment of the places they will eventually work in. The nature of the environment put in place for the final cycle of the action research was outlined and justified in chapters four and five. What was needed now was evidence to indicate if it was working and if so, how well it was working. The question most pertinent to an evaluation of this aspect of the research was: What was the environment supposed to do or allow to happen? The fundamental answer to this is that it was to create a backdrop to the teaching and learning in true social constructivist manner. But what was it about the structuring of the room and the culture of teaching in the GNVQ centre that would indicate it was successfully 'business-like'? What should it allow students to do and could I find evidence to suggest that this was happening?

Dealing with the evidence first. The findings offered below came from several sources: the students' own views gathered through surveys and their GNVQ paperwork, mainly 'action plans' and 'evaluations' (some of which has already been offered in chapter five); the views of others not directly associated with the GNVQ (staff from other departments who used the room and Ofsted) and through observation (see 'Notes on organisation of the database'). The instruments used for collecting views and observation are included in the appendices 10 and 28) whilst comments from the Ofsted report (Ofsted, 1999) and an associated interview (Ofsted/18 Nov 99) are referenced.

It is worth noting here that the observation schedule (appendix 10) was constructed from the work done on the business organisational theorists and the interviews with local businesses. A coding was used to make it practical to use during the assignment completion phases of GNVQ assessment. I was particularly interested to see how the students used each other, the physical space and their own skills during this stage. A superscript was used on the instrument to indicate level or complexity of work (see appendix 28 for a completed example) and this made it possible to differentiate between say, groups discussing something quite superficially and those engaged in problem solving or negotiation. Interestingly, the 'off-task' notation was rarely used.

Two groups of students (Year 12 Leisure and Tourism and Year 13 Business group, amounting to 14 individuals) were used for this observation over five elements. Once a teaching and learning phase was completed students were given anywhere between a week and three weeks to complete an assignment. During this time I was able to do an in-depth observation of the students over a total of 22 lessons. It is worth noting here that the nature of the assignments and work was very varied across the five elements involving research, reports and presentations. As a result the pattern of work and the nature of the activities was very different. Results of the observation are given with this in mind. Where there is a significant difference in results due to the difference in assignments this will be commented on. *In the notes on organisation of the database these are referenced by month (e.g. Obs/Feb 00) as they, like one or two other aspects, could not be ascribed to one particular date.*

As to 'What should the environment allow the students to do?' the answer was to allow the students to behave as if they were in a business, to demonstrate the self-motivation, maturity and responsibility they would need to hold down a good position. It also had to facilitate good communication, good relationships between the workers (students) and staff

(unit managers), allowing them to work together as groups, yet be able to work individually where needed. These workers had to be clear about their objectives, aware of the 'big picture' and have access to information and extra training or tuition that would allow them to complete their tasks. The environment had to offer freedom of movement to use the facilities and technology purposefully and had to offer the opportunity for reflection.

Findings for this section will be put under the headings:

- Conduct, attitudes and the nature of relationships within GNVQ
- Communications and the student's perception of their work
- The students' use of the physical space and resources
- Work patterns, motivation, responsibility and reflection
- The students' attitudes to the vocational aspects of GNVQ

Conduct, attitudes and the nature of relationships within GNVQ.

The intention here was to create a situation where students had a good working relationship with staff and with other students, rather like the model suggested by Etzioni (1975).

The evidence for this was drawn from data, relating to observation records of five groups (Obs/Oct 99a; Obs/Nov 99a; Obs/Oct 99b; Obs/Nov 99b; Obs/Feb 00), details from the Ofsted report (Ofsted, 1999) and a survey of staff (Staff/Feb 00). A copy of the schedule is included in Appendix 29.

The seven staff from other departments who used the GNVQ room were impressed by the relationship the students had with their peers and others in the groups involved in the research. It is interesting to note here that three of these commented informally and spontaneously on the quality of the environment well in advance of my intended data collection exercise. Apart from two or three minor negative comments on single questions, the bulk of the rest indicated a 'busy', 'purposeful', 'constructive' climate. It was generally held to be friendly, sometimes noisy but orderly and conducive to

work. Students were observed to be engaged in their activities and enjoying what they were doing.

A question on the students' relationships with each other elicited comments such as 'mature', 'determined' and 'supportive' with students happy to talk to, and learn from, each other. Co-operation and excellent social skills were noted. One member of staff commented that he had never noticed 'negative reactions in groups using the room', (Staff/Feb 00).

Relationships with staff were also seen in a positive light. Teachers were seen much more in a supportive than in a didactic role. The idea of the learning manager was apparent here. Several commented on the easy relationship that enabled students to discuss ideas and talk through suggestions and feel that their ideas had value. Students were also noted here as generally being mature and polite, but what was also pointed out here was the room's major drawback for some staff. Open plan office type structure meant that some staff were often disturbed by activities (usually valid but loud) that went on elsewhere in the room. However, this was not the view of all. Several commented on the consideration most students had for other groups. Observation of the students at work bore out the evidence from the students and those outside.

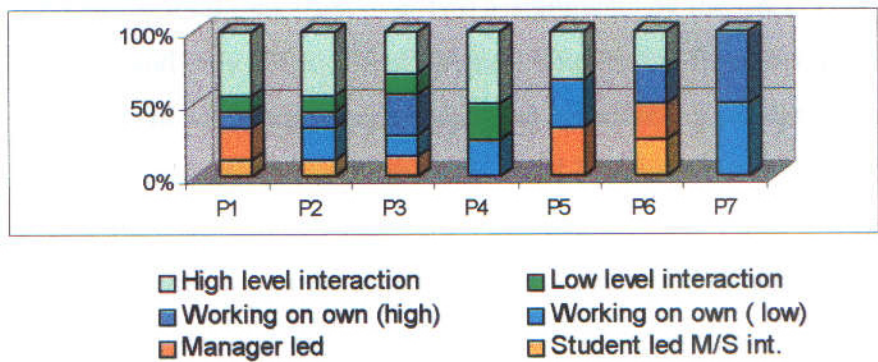


Figure 7.1: Example of results of observation of student use of time during assignment completion periods.

A chart similar to figure 7.1 was produced for all the students completing assignments in both groups. This tracked their use of in assignment completion lessons in relation to categories derived from the theorists and the research into local companies. High level interaction shown in light green involved the students having discussions that led to work being enhanced or problems solved. Between 12% and 30 % of a student's time was taken up with this sort of activity, showing clearly that the environment was conducive to this behaviour. Of these instances approximately 14% of the total interactions were of pairs of students and around 5% involved three or more students sharing ideas. These instances did not involve staff directly. Meagher (1997) who also carried out observations into behaviour in GNVQ lessons only recorded around 2% of time (p50) on these activities. I shall make reference to that study but it is difficult to make comparisons especially as my own observations were based specifically on the 'assignment completion' lessons, that accounted for around 30-50% of the time dedicated to a topic.

There was a very wide spread of the number of occurrences of students asking for help from staff. This reflected the differing nature of the two groups and the tasks. This was specifically student initiated help that led to important discussion or understanding and accounted for between 4% and 29% of the total time used over two assignments by the L&T Year 12 students and only 2% to 7% of the total time for the Business Year 13 students. In actual time across what was effectively a similar period, the mean for each group was 28 minutes and 17 minutes respectively. This was a good indication of self-motivation and taking responsibility. Typically, these instances were related to use of new technology or requests for advice over structuring and locating sources of information. Both instances of this sort of communication and use of IT were higher than Meagher (1997) recorded.

Most students liked the atmosphere in GNVQ, especially the less formal staff/student relationships and this was noted by Ofsted inspectors when they visited the school in November 1999. Ofsted (1999)

‘Students benefit from the high level of trust accorded them by members of staff’ (para 198, p40)

‘Very good expectation of mature relationships between staff and students. Good relationships between students...students treated as adult learners.’ (Ofsted/18 Nov 99)

A particular comment concerned one of the lessons I conducted as part of the third Action Research cycle. It confirmed rather nicely, what I was trying to do.

‘One assignment review in a Year 12 Leisure and Tourism class was conducted as a board meeting in a commercial company and this illustrated the mature relationships.’ (para 199, p40)

Communications and the students’ perception of their work.

The evidence from this aspect was drawn from data derived from five sets of student evaluations (Ass/15 Oct 99; Ass/17 Nov 99; Ass/21 Dec 99; Ass/2 Nov 99; Ass/24 Nov 99) and a staff survey (Staff/Feb 00).

As has already been noted in chapter five, the students all felt confident about communicating with staff and each other. This applied to the lessons and the quality meetings. From a study of the students’ comments this situation proved to be the same during this period. A number of comments from evaluations pointed to instances where, either through student or teacher initiated contact they were able to overcome problems concerning

their planning and eventual outcomes. One staff member commented that there was:

...negotiation, open, easy communication' (Staff/Feb 00).

The students also felt that they knew exactly what they were supposed to be doing. Again this came through clearly in their evaluations and in the comments by staff and Ofsted.

'...lots of focussed work, nobody seems uninvolved or sitting around.' (Staff/Feb 00)

'They are well motivated and have an accurate view of what is needed to improve their levels of attainment.'
(Ofsted, 1999 para 197, p40)

'...students have an accurate view of requirements/key skills (good)' (Ofsted/18 Nov 99)

The students' use of the physical space and resources.

The evidence from this aspect was drawn from data derived from five sets of student evaluations (Ass/15 Oct 99; Ass/17 Nov 99; Ass/21 Dec 99; Ass/2 Nov 99; Ass/24 Nov 99), work experience reports (Wexp/98-99), comments from an Ofsted preliminary report (Ofsted/18 Nov 99) and a staff survey (Staff/Feb 00).

One negative comment from a staff member noted that some, boys mainly, treated the room as one large area and consequently did cause some minor disruption. What she also pointed out was that this was 'good, as it shows they feel comfortable' with moving about the room. (Staff/Feb 00).

This view was also supported by a number of work experience comments, about students involved in the action research, that indicated good abilities on IT and in such things as working with a team in an office.

Observation confirmed this use of the physical space and the resources. Interestingly, one criticism from Ofsted was that students wanted higher specification machines and better access to the Internet across more machines (Ofsted/18 Nov 99). At present about 20 out of the 35 in the locality have Internet connection.

The L&T lessons observed were split into 48 fifteen minute sections for analysis and the Business lessons into 40 sections, as their assignment time was slightly shorter. The L&T group spent between 24% and 60% of their time using the technology, computers mainly but also the scanner, photocopier and telephone. Also during 12 to 24 of these segments they were observed to move purposefully, that is to the library, off premises or to another room for additional resources or assistance. The Business group was involved in a more heavily ICT orientated assignment so they were observed to spend between 27% and up to 60% of their time using technology and only 3 to 6 movements were noted. Meagher (1997) noted only 24% (p50) use of ICT and much of that low level (p55). It is worth noting here that the problem solving instances noted in the previous section were often to do with technology problems or techniques.

A good example of this was the Business group who were collaborating for part of the time on compiling a database of customs and cultures across the EU. On one occasion a lot of time and discussion was needed to track down and import graphics files of national flags into the correct fields.

The environment encouraged communication and movement. A selection of pie charts showing students' use of their time (Figure 7.2) indicates the high levels of interaction both high and low level.

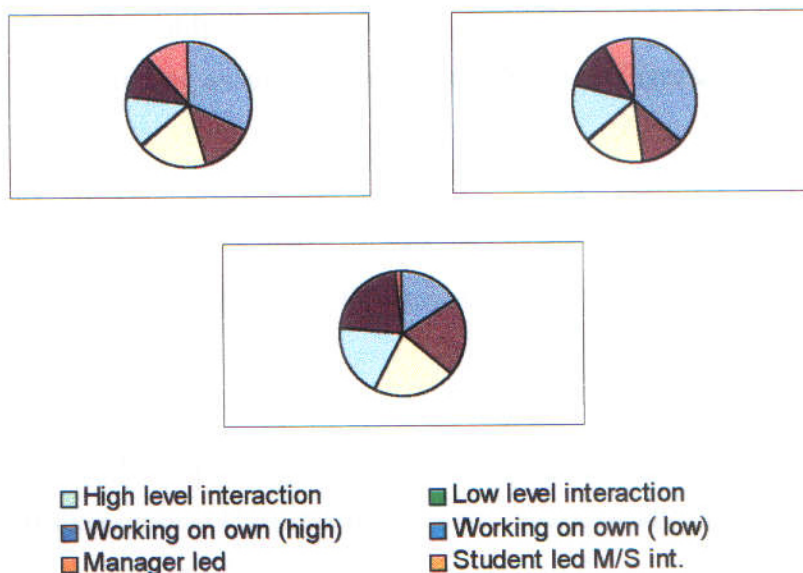


Figure 7.2: Three students' use of time over an assignment completion period.

Work patterns, motivation, responsibility and reflection.

The evidence for this was drawn from data relating to a survey of staff (Staff/Feb 00), observation records of five groups (Obs/Oct 99a; Obs/Nov 99a; Obs/Oct 99b; Obs/Nov 99b; Obs/Feb 00), six group reviews (Rev/28 Sept 99; Rev/16 Nov 99; Rev/24 Sep 99; Rev/27 Sep 99; Rev/17 Jan 00; Rev/9 Feb 00), two meeting with students (Students 15 Sep 99; Students/26 Nov 99), work experience records (Wexp/98-99) and numerous individual reviews.

The staff questionnaire indicated that the GNVQ students, all of whom were, or had been, involved in the action research, were seen as well motivated and 'able and eager to work on their own'. One respondent went so far as to say 'I prefer teaching vocational students and prefer GNVQ to A level rooms because the attitude is so positive with GNVQ, whereas with

‘A’ levels it is so negative.’ The word motivated was used by most staff and by Ofsted (Ofsted, 1999) who also added:

‘Students’ attitudes to learning are positive,
demonstrating an ability to work independently’ (para
197, p40)

Added to these comments, work experience reports from employers all contained positive comments on the ‘action research’ students’ attitudes to their work.

During the observation, high levels of individual high level work was noted as well as interaction. The pattern with many was a steady spread of high and low level individual work that fitted their plan for the assignment, but interspersed with times of discussion and interaction with other students and staff members. A good example of this is the profile of a student shown in figure 7.3 below. In her evaluation the student notes that she ‘got the donkey work’ out the way before settling down to the more difficult aspects. It can also be seen how in lesson five she probed the teacher for help which led on to additional instruction for all the group in lesson six, instruction that then allowed her to continue and complete the high level work.

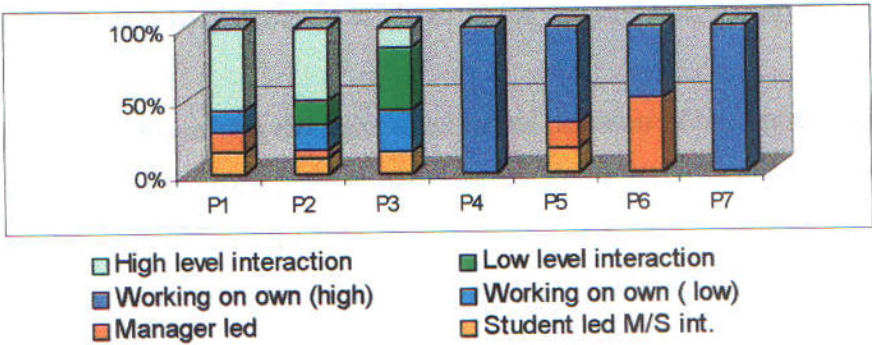


Figure 7.3: Profile of activities of a Leisure and Tourism student during an assignment completion period.

This sort of self-organisation is apparent in all the students, although of course it does not always mean that their work was perfect or even approaching it. Observing the sequence of events made me realize just how important were the reviews and group sessions where I was involved.

Reflective periods were not something the students found easy to carve out of a busy session where the time pressures had been deliberately created to emulate something of working life. These were provided by the reviews held at regular intervals. The importance of these is only apparent when studying the observation results in conjunction with the evaluations and plans. Reflection and group evaluation of what had happened so far, stimulated additional instruction and aided higher level individual or group work immediately afterwards.

During this research cycle two other things happened that added weight to the belief that the environment was encouraging responsibility. The first was the purchasing of a coffee machine as requested by the Business Quality Circle meeting. This was installed in the informal area just outside the GNVQ centre (see figure 6.5) and has been managed ever since by this group. They keep accounts and organize coffee, chocolate and tea for the GNVQ. The nature of individual timetables means that it is not available all the time but it has become a facility run for the students, by the students.

The second event was the quite unexpected decision of the same group, now Year 13, to organize a leaving party for the entire sixth form as part of their 'Administrative Operations' optional unit. The specifications state that the event has to be for a minimum of six people. The Year 13 sixth form population is around one hundred and twenty. Practice for the office parties to come?

The students' attitudes to the vocational aspects of GNVQ.

The main source of evidence for this is the work experience reports (Wexp/98-99) which, it has already been noted, were all very positive. It is however, difficult to decide how strong this evidence is, as the work experience paperwork has been created for the use of the placing organisation. Also, there is no real way of separating the effect of the action research from other influences. Two of last year's students and one of this year's are on job offers because of this and every year the GNVQ department loses several of its students to work experience placements during the course. This is a problem in some ways because the course is vocationally orientated which means that student's getting job offers can only be regarded as positive, yet we are still subject to FEFC funding and completion rate calculations which put this down as 'attrition'. The other source of evidence for attitude to vocational aspects is the Ofsted report.

(Ofsted, 1999) noted

'Overall, students reported widespread satisfaction with their courses. There was enthusiastic support for the GNVQ work experience placements in Year 12...providing valuable material for their assignments and giving them first hand experience of the world of work.' (para 197, p40)

'students were confidently applying previously acquired skills in graph plotting to their work experience assignments' (para 199, p40)

'the quality of teaching overall is good, with high levels of technical subject knowledge related appropriately to vocational programmes' (para 200, p40)

‘Well planned assignments offer good preparation for the world of work and for further and higher education.’
(para 201, p40)

Evaluation of the teaching and learning phase on students’ self awareness

Students’ awareness of their learning styles and the usefulness of this strategy.

The evidence of this evaluation is drawn from the data on evaluations, reviews etc. that took place over the course of the teaching and assessing of eight elements across both L&T and Business Year 12 and Year 13 groups. Overall, as can be seen from the Notes on organisation of the database, it consisted of approximately six group reviews (e.g. Rev/27 Sep 99) , sixty three individual reviews (e.g. Rev/10 Nov 99) and thirty five individual student evaluations at the end of assignments (e.g. Ass/24 Nov 99).

The evaluation guidelines (figure 6.10) were very effective in drawing out the students’ understanding for Year 12 especially as this booklet was revamped during the summer before they arrived. Year 13, having worked with the previous booklet that did not contain the guidelines, tended not to use the vocabulary without prompting. However, it was possible to tease out their understanding of their own strengths and weaknesses in line with learning styles. On occasions, I asked students to add a paragraph to their evaluations relating to this and they had no trouble.

The students had little or no trouble in applying the learning styles to themselves and understanding the implications for their work. A series of quotes here will help to show this.

(Regarding styles) 'This helped me to realize that I have trouble with planning thoroughly and accurately before beginning work on an assignment.' (Ass/24 Nov 99)

From the first evaluations on the first assignments Year 12 student, were making comments such as:

'...to be honest, I found it quite difficult. This was not because I did not understand the work but because there was a lot to do and because of my personality and learning style. I enjoy actually getting on with a piece of work or collecting the information needed for example going on visits.' (Ass/15 Oct 99)

This Year 12 student gave deep consideration to her style recognizing not just her own preferences but the style-orientation of the task

'This is an assimilator task that means it should have been my strongest area, however it wasn't. In this particular assignment my strongest area was planning out what I was going to do, which is a converger task...' (Ass/24 Nov 99)

This Year 13 student's style was the more abstract assimilator, here he comments on his weaknesses in the largely diverger style.

'I would improve my pictorial representation as it was just graphs and they were not that imaginative and pictorial representation was important as it enticed the listeners to pay attention' (Ass/2 Nov 99)

Here, this Year 12 student's consideration was how to adapt the work to fit her own style

'...but this made the assignment more varied instead of just pages of typing and note making, which because of my learning style I do not like very much, even though it is very important' (or 'impotent' as the student actually said!). (Ass/21 Dec 99)

This assimilator student recognised that her style did not push her into being outgoing and she recognised a need to address this

'With my learning style, I am meant to be a person who gets on with their work and prefers to listen to other people, but I found myself expressing my thoughts more which sometimes helps the group and sometimes not. This I will try to improve on....' (Ass/15 Oct 99)

Often, especially with the Year 12 group the evaluation turned into real reflexivity as here:

As my learning style is accommodator, it means that I take a hands-on approach, which was useful during the information gathering section. However, this learning style also means that I don't plan very well and I find concentrating on note taking very difficult. To overcome these problems, I tried to keep a detailed plan and once something had happened I was sure to write it in my plan' (Ass/24 Nov 99)

Whilst the students were able to identify their own styles and relate them to tasks I had identified as leaning towards one style or another, it was not so

easy for them to do this themselves. Several experiments within lessons with both Year 12 and Year 13 showed that they were able to make reasonable guesses but they did not find it easy. Many questions and tasks were quite subtle and the fear of making a wrong decision often made the student's not try. The staff information sheet (appendix 25) helped but mainly with identifying grading themes. The students did latch on to this and to a general concept that diverger meant 'describe', assimilator meant 'explain' and converger meant 'evaluate' but even this needed constant reinforcement. I placed information sheets all around the room but the students' grasp of this aspect was still a skill that did not 'stick' easily.

There is plenty of evidence in the evaluations and group sessions to show that the students did relate their work to their style and that they became aware of possible difficulties they might encounter, but the language did not appear in their discussions, perhaps because of its artificiality. I had hoped that this common language would be useful to them in the social aspects of learning. As far as I could see this only happened when I instigated it. Certainly they understood the difficulties or otherwise a style might pose but they reverted to talking to their peers in terms of planning and research and notes.

The effectiveness of the structure of the teaching and learning phase.

The evidence for this section came from a synthesis and analysis of the data collected from the reviews, evaluations and achievements of the students.

There is a good amount of evidence, looking at the performance of a single student over two or more elements, to show that students often tried to overcome the perceived difficulty caused by a learning style. There are a number of instances of the improvement [I] aspect of SECTRI being the vehicle of improvement.

The SECTRI structure worked well especially where care was taken to introduce the overall assignment task, key skills requirements and the relevant terms in the Engagement [E] section. There were approximately twelve of these introductory lessons and data from discussions, reviews and field notes (e.g. Vol. 2 Nov 99; Vol. 2 Jan 00) indicated how much the students valued all of them. Discussion often grew out of the introduction of the terms leading to the flashes of understanding that feature so much in this approach. It was important here to keep varying the mode. This was made clear by one group of students who even enjoyed the use I made of swapping from OHP to whiteboard, drawing over projected maps etc. At the end of one session I explained what I was trying to do in the structure of the lesson and asked for comments. I was quite surprised but pleased by the way several students were willing to offer positive criticism. The most interesting of which was:

‘some parts were not explained, you hurried on too quickly and we did not feel confident to stop or correct you.’ (Rev/27 Sep 99). Comments like this reinforced the importance of a stage of the work that is often glossed over.

The Complicating [C] and Taking Responsibility [T] stages were the most challenging to construct but when successful were also greatly appreciated by the students. They were also subject to pressure from time. Often exercises that pushed the students into using different styles or more complicated approaches deserved more time than the full GNVQ structure allowed. The students, especially the Year 13s were sometimes critical of exercises that they did not see as relating directly to the assignment. The open nature of my research, whilst on many occasions helpful in this situation, could sometimes be looked on with suspicion rather than as a way of improving cognitive ability. This was especially true of one or two boys and relates well to the research done on deep and surface learning by Entwistle (1987).

Generally, however, this work was well received. Several Year 12 students found it useful for helping them with specific worries to do with key skills or concepts of such things as 'scale' in Leisure and Tourism. In the Business group, the student presentations on EU member states was much more varied than in previous years, after several [C] and [T] sessions that looked at the nature of statistics and presentations. The field notes (Vol. 2 Nov 99) from that lesson indicate that the student's were really involved in discussing how different sets of data could be combined to improve presentation (Ass/2 Nov 99p). The complication [T] here led on to the variety of presentation [T]. The teacher's interventions in this stage were crucial and will be discussed below.

The reflection [R] and improvement [I] sections proved to be very challenging to the students. Not only did they appear during the teaching and learning phase but they were repeated in the assignment completion. One useful strategy employed here was to bring together all of the [I]'s from the teaching and learning phase and offer them to the group or individual just before the assignment started. This had the advantage of reviewing both the assignment from the Engagement stage [E] and their perceived strengths and weaknesses. Evidence from records of these meetings and the students' plans shows that these were taken on board. Student's recognised things they were likely to find either easy or difficult and felt confident about discussing ways around them or even asking for help later in the assignment stage. In around half the evaluations this 'ask Richard' or 'check with someone' refers to just such a situation.

The evaluation of student activity during the assignment completion period.

The evidence for this aspect was drawn from approximately six group reviews (e.g. Rev/27 Sep 99), sixty three individual reviews (e.g. Rev/10 Nov 99), thirty five individual student assignments (e.g. Ass/24 Nov 99) and five sets of observation records (e.g. Obs/Nov 99b)

From the data collected it was possible to see how each student found their way through the work for the assignment, if they attempted to deal with their own highlighted weaknesses and how the environment affected this work.

The observations and comments were noted on data sheet in appendix 30. I shall use a student as an example of how the recording tracked her progress. The grid (figure 7.4) gave the opportunity to relate the teaching and learning phase improvements [I]'s, the assignment completion phase and the eventual outcomes in terms of grades and key skills achievement. The student (A) identified difficulties and potential problems in the teaching and learning phase. Most of these were related to style and were thus plotted in the appropriate boxes. For her, they consisted of concerns over her organisation of the planning, and a worry about collecting irrelevant information in the Information Seeking and Handling aspect. She was also worried about the way she presented the final report, this was both a synthesis concern and a communication key skill concern. She was also worried about using ICT.

What was clear from the assignment completion stage was that she made use of the environment to tackle those concerns. Mapped against the worries in planning and research are large amounts of time involving student interaction, where I observed her facing these concerns and discussing with others strategies for handling them. Some part of most lessons involved her checking, discussing and collaborating to understand this work. The final lesson and homework was dedicated to completing the written report. The final grades were good. She achieved an overall distinction in Planning and a merit in Information Seeking and Handling, although of the two criteria making up this grade one was a distinction. Again in Quality of Outcomes her final grade was a merit. She handled the terms well having used her style to make sure she understood the terms in the early engagement [E] lessons and got the merit in the synthesis. This is

related to the effort she took to discuss with me the relevant aspects of the work. Some part of almost every lesson saw her approach me with a concern over this. The resulting grade reflected both her work and the level of support. Key skills achievement was good. The final communication presentation was very good and the ICT work was good too. This related again to discussion, usually initiated by her, and a lot of hard work on the technology, putting the discussions into practice and solving problems.

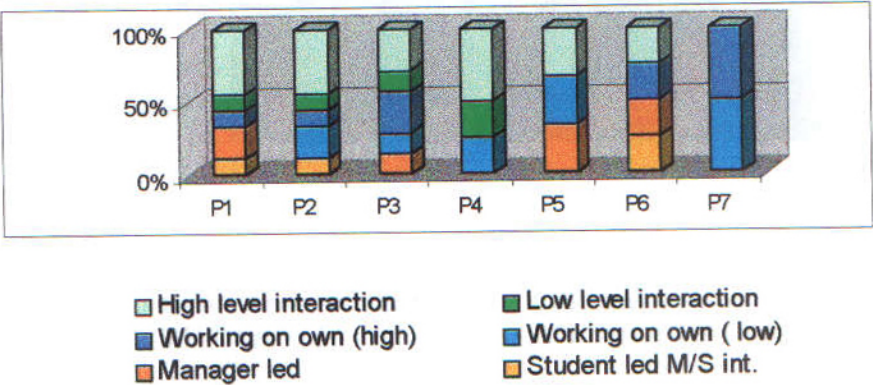


Figure 7.4: Student A: Profile of activities during assignment completion period.

A second student (B) in the same group (figure 7.5) displays a very different behaviour. His concerns from the teaching and learning phase again indicated worries over planning and research. Skills-wise, his learning style matched the communication and ICT skills required. He was good at identifying his weaknesses but, when it came to the assignment period, not so good at dealing with them. Activity across this period showed plenty of interaction and high level work but it all focussed on the areas he was competent in from a learning style perspective. There was also virtually no student-initiated contact with me as Unit manager. His final grades were only a pass in Planning and Information Seeking and Handling, a merit in the evaluation, which related to his style and just about a merit in the Quality of Outcomes. This was partly due to the quality of his key skills, again in line with his style, that brought a lot of the low-level work together.

What is clearly visible in this pattern of activity is the lack of student led teacher/student interaction. In other words, lack of asking questions or checking with me that all was going well. The high level interaction with other students is also only a small proportion. In most students' profiles it features highly if grades are good.

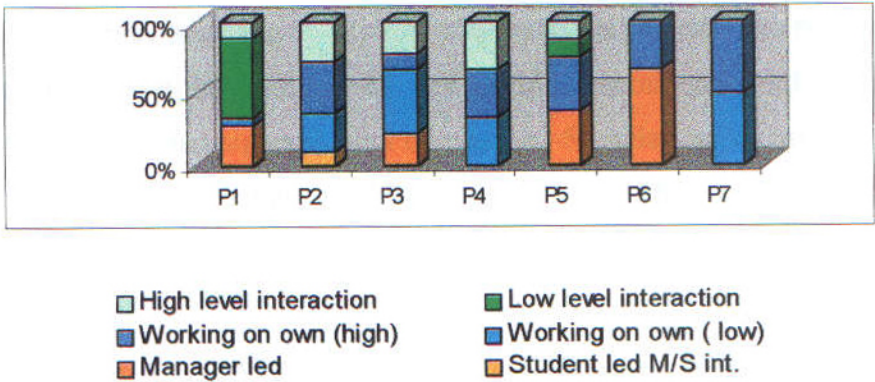


Figure 7.5: Student B: Profile of activities during assignment completion period.

Evaluation of the teacher’s role

The teaching and learning phase.

The evidence for the claims in this section came from an attitude survey (Survey/7 Apr 99), five sets of observations and thirty five individual evaluations.

Responses from the students, in both surveys and evaluations, showed that the teacher is a crucial element of this part of their development. Around 87% of the students in all the groups involved over two years saw the teacher in a positive light and vital to their development. In virtually every

evaluation some comment was made regarding a prompt or piece of instruction that helped students move on in their understanding or cross that particular zone of proximal development. Teachers 'stressed the importance of', 'suggested', 'showed me how'. Sometimes it was phrased differently such as 'by talking it over with the unit manager' and at other times it was a mental note for future reference as in 'check I understand words, ask RH/GM (two unit managers) if not sure'. Meetings in the review stages note students understanding or knowing what to do after a prompt or a suggestion. Field notes (Vol.2, Oct 99, Jan 00) show that the use of prompts that stopped short of giving an answer, or quizzed the student as to how they reached the answer they did, proved very useful in encouraging higher levels of thinking and higher quality discussion. Stimulating discussion was, of course, one of the most valuable aspects here. The encouragement to discuss things came across in review meetings and evaluations.

The encouragement to reflect was also an important role. Reflection and time to reflect are the things that are often missed out in pressured GNVQ lessons, as in businesses everywhere, yet the evidence from the students is that they do need to stop and think about their development. Relying on the written evaluations at the end of the assignment was not enough. Often they are rushed and isolated. In these lessons, evaluations came at the end of a long line of reflective periods, short and often focussed on learning styles. Here the quality of reflection and the results are evident. Students acting on the improvements [I] they identified usually improved in that area.

One unexpected, although on reflection not surprising, discovery was the importance of the teacher to the assignment completion phase of the work. This was not just because of the continuation of review and improvement throughout it. The charts used to analyse the student's use of the environment in this stage included interaction with the Unit manager, under a 'Manager led' heading.

In figure 7.6 the Manager led interventions are shown with the following colour.

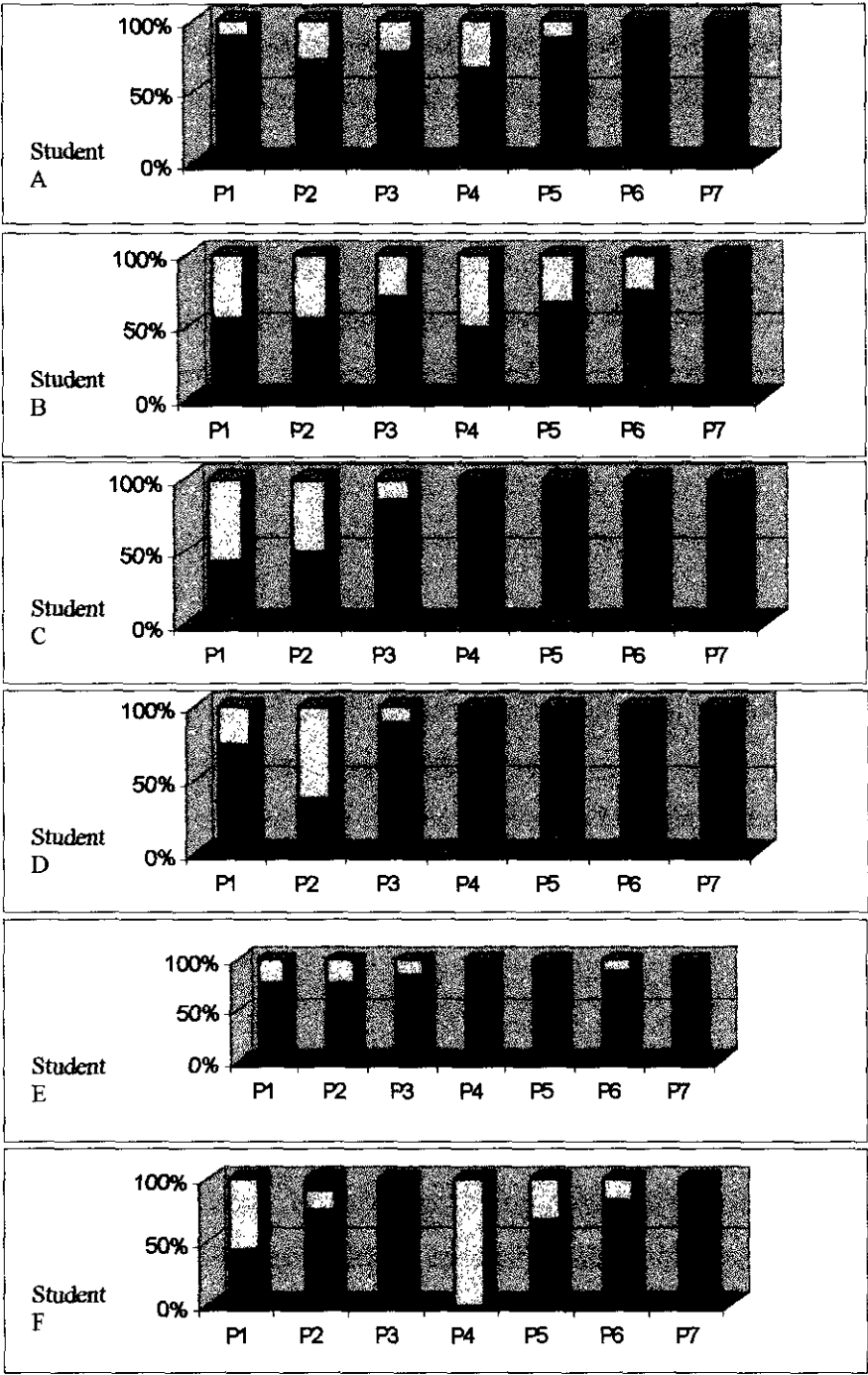


Figure 7.6: Student group activities over an assignment completion period highlighting the interaction with the Unit Manager.

My interventions as unit manager were one of two sorts, those where I perceived an individual need and those where I recognised the whole group needed instruction. When I checked the observation schedule, I discovered that student initiated and unit manager initiated discussion were often linked. These were instances where one or two students had approached me with a particular need and I had recognised this as something all the students needed and I had called them together for a short while. Taking another look at the evaluations it became apparent that comments about help from the unit manager applied to this period of work, not just the teaching and learning phase. Of course, in this stage, as well as the previous one, it was important to maintain the same sort of prompts and complications.

Implications for staff training.

The general approach is not too far distant from what good teachers usually do in classrooms, with several major differences.

Firstly, the teaching and learning is structured to be brought to fruition in a business environment. If that is set up as in the GNVQ centre at my institution and the staff are used to teaching vocational courses, this should not pose a problem

Secondly, the use of learning styles requires some quite intensive training. The failure of other staff to become involved is in part due to the difficulty they found in internalizing the styles and being confident with identifying the style of questions and activities. I seriously underestimated the time and effort needed for people to feel comfortable with this. Added to this is that staff undertaking this need to be aware of their own style and recognise that there is a tendency for all of us to teach to that style. There is also an issue here to do with how styles are presented. The artificiality or 'distance' that can be created by using the technical terms may have caused more of a

problem than I expected. It may be that discussions with staff will provide a way of approaching styles so that they can be taken into and retained in the student's vocabulary more readily. I will also need to emphasize the importance of seeing styles as fluid and non-static to encourage the recognition that their use is all about potential.

Thirdly, the SECTRI approach requires staff to adopt a more dynamic role in both the teaching and learning phase and the assignment phase. Whilst most of the staff associated with the department at my institution would not have a problem with this, they would have had difficulty redesigning the work they have been teaching for what was the last year of a live examination course. This was unlikely to happen unless forced and even less likely when an Ofsted inspection was due in the same year.

The teaching role and the structure of this course are inseparable. For staff to feel happy with the work, they need to have designed or redesigned the content of their courses to their own satisfaction, only then will the staff information sheets and prompts be of use.

CHAPTER EIGHT

Conclusions

This study in relationship to other research

Research Question 1. 'How best to create a business culture.'

Whilst it was never the intention to problematise the GNVQ as part of this research, four years of study has made it clear that any attempt to develop a 'culture' for students to work within cannot be value-free. This was made clear by the work of people like Eisner (1992) on the need to abandon concepts of absolute objectivity and the whole post-modernist framework that is now a fundamental part of more recent work in all variants of social constructivism Prawat (1996), Cobb (1994), Hausfather (1996).

I recognise that the culture I attempted to recreate was along the post-fordist, learning organisation line. This line, whilst championed by eminent practitioners and theorists such as Stewart (1996), Handy (1985a), Etzioni (1975) and McClelland (1961) is not the one that always exists in the real world. The local organisations (Int/98-00) I visited were skewed this way, uncovering a possible weakness in my selection or simply underlying the fact that less 'enlightened' organisations are not immediately accessible. Esland (1996) and Winter (1995) and others suggest that a more severe neo-fordism is the norm and that instead of striving to become learning organisations developing their workers and extracting the 'gold' from their heads (Murray, 1989) they are driven by managerialism and bottom line profit. If this is the case then the employer as a stakeholder (identified in chapter one) may not want what I have been trying to achieve.

Leaving that conjecture aside, it is important to look at how well the attempt to define and produce a legitimate 'business environment' went. The evidence suggests that the structuring of the environment in terms of culture

(shared beliefs, ideas, customs and values, (Etzioni, 1975)); climate (the atmosphere created by relationships and attitudes, (Etzioni, 1975)); organisation and communication (Handy, 1985a,b) went well.

The environment was successful in getting the students to understand the work they were doing and the way it was done. The Ofsted report, the staff's comment and the students themselves evidenced this clarity, an important aspect of a business organisation. Some aspects were more successful than others in achieving this. The handbook was expected to be more in use than it ended up. In the first few weeks students were continually referring to it but later it fell into disuse. Some information was obviously internalized but some aspects were obviously not as the students needed constant reminders. An example of this was the detail of learning styles.

Relationships between staff and students were very mature and business-like and there is some evidence that this transferred to the students' behaviour on work experience placements (Wexp/98-9). The teachers' (or Unit managers') role here was significant. Student comments in reviews and evaluations suggested that they did see the staff as the 'organisational problem solvers' (p91) that Garratt (1987) felt directors in companies should be. What was clear was that the use of terms like Unit manager were not universal in GNVQ and it is unclear how valuable they were. Some students used the term all the time, others including staff slipped back into using 'teacher' or 'assessor'.

Communication in a 'business-like' fashion was regarded by all as successful. As the surveys and observation showed, students all felt confident in talking to each other and staff. The percentages here were much larger than those found in the Meagher (1997) study. Direct comparison is not easy as data was collected under different categories, but Meagher (1997) found only small percentages of discussion and giving or

receiving help, whereas what I designated as ‘high level interaction’, featured significantly in the observations undertaken for this study. Often percentages were between 14% and 20% of the overall lesson times. Quality circle meetings were valued but were not frequent enough and it was difficult to respond quickly to requests for changes or improvements. The change to assignment booklets for instance had to wait for the stock of originals to be depleted and budgets to be set. Both Handy (1985a,b) and Pedler et al (1991) note the importance here of quick responses, which was not easy to achieve.

The encouragement to become learners in a learning organisation, as Garratt (1987) would have liked to have seen, created by the environment seemed to work well. The students were observed to use the environment purposefully and displayed a very positive attitude to their work and their own development. Just over twice the amount of time was recorded as ‘high-level’ individual work as opposed to ‘low-level’.

One big problem was the pressure of time and work on the staff and students that often militated against maintaining the climate and environment. Frustration at a ‘noisier’ atmosphere or interruptions from other students when there was a deadline to hit, occasionally resulted in teachers resorting to more formal teaching and relationships. Behaviour was occasionally an issue. ‘Some horseplay, when staff are not around’ was noted by one non-GNVQ teacher but a user of the room and incidents that resulted in minor damage (there was never any serious incident) or inconvenience forced staff into ‘discipline’ mode. Even though the handbook was supposed to have established procedures to deal with this, it was often dealt with as if students were younger. (As an aside here, I can remember being an office junior in 1969 and not displaying the most adult of behaviour myself!)

However, what this does lead me on to is the effect of the GNVQ business environment existing as a sub-culture within the larger school culture. Garratt (1987), Wertsch (1985) and Dahllof (1991) note the difficulty of escaping the effects and influence of the culture your situation exists within and I identified this as a concern in chapter one. There was a noticeable difference between the culture in the GNVQ room and the rest of the sixth form and indeed the rest of the school, but the students in GNVQ were, in the end, subject to the 'practices, ceremonies and rituals' Trice and Beyer (1984) of those larger cultures. It is, at present, possible to maintain almost a physical barrier of realization of difference by going through the door to the GNVQ centre, but this may not be so easy to maintain once the September 2000 changes arrive. Currently, most students spend either all or three quarters of their timetable in the GNVQ environment. This will dramatically reduce for a lot of students next year who will be completing a GNVQ half or even one quarter of the size and spending the rest of their time in an 'A' level environment.

Research Question 3 and 6: The development of the student throughout the structure of the teaching and learning programmes and necessary level of awareness.

Evidence from the lessons and the students made it quite clear that Vygotsky's (1978) view of the importance of social interaction in cognitive development is sound. Lesson after lesson contained examples of students finding their way to ideas and developing concepts using the discussion and involvement of staff and other students. The idea of constantly remodeling, redefining and creating new and novel situations to stretch students offered by Feuerstein (1979), Campione (1989) and Hedegaarde (1990) was shown to be very successful in helping the students develop. I was particularly pleased here with the way that the use of learning styles (Kolb, 1984) was brought into play. A standard method used in the teaching and learning structures created for this study was to complicate the work by getting students to make a conscious choice by tackling a task they knew to be

unsuited to their style. This brought the cognitive psychology and the social constructivism together in a way that fitted with Cobb (1994) and Prawat (1996)'s views. It is also an approach unique to this research.

The place of assessment was well defined in this study. Campione and Feuerstein both stress the need for assessment to be dynamic and diagnostic. In all stages of the student's work this was the case. Learning styles were used not just to help complicate the work, but also to give the students some ideas as to how they were reaching their current level of achievement, offering a perspective on the mental processes on as advocated by Biggs and Kirby (1980). The fact that assessment during the teaching and learning phase was accessible, and even left with the students, was a significant point as it encouraged responsibility. It was also of value because learning styles were never offered as static or fixed, merely as an indication of strengths and weaknesses at that time. Self-evaluation and improvement was an *ongoing thing, following the Kolb (1984) learning cycle, which was of course, the basic structure underlying the SECTRI teaching approach.* Even the final assignments were used to encourage the students to think of the next improvements.

What also proved valuable was being able to link aspects of learning style characteristics to the GNVQ grading themes and evidence indicator requirements. Students were able to equate such themes as 'Planning' and 'Quality of Outcomes' and assignment requirements such as 'describe' and 'explain' with their own strengths and weaknesses.

The use of learning styles as a common language or currency for the students to discuss their development in a Vygotskian social structure was less successful. I had hoped that I could approximate what Bruner (1986) described as 'constant transactional calibration in language' (p61) where the common use of learning styles would stimulate more explicit discussion of development. However, this did not happen. Students found terms like

‘accommodator’ too unfamiliar and it was not until a long way into the research that I began to use more user-friendly and patently more intelligible terms like ‘doer’.

Research Question 3: The structuring of the teaching and learning phase.

The experience of constructing the teaching and learning phase of the work and the difficulty in getting other staff to become involved has made it clear that the approach is something that has to be consciously constructed from the beginning. It is not really practical to try and graft on the approaches. Hedegaard (1990) made the point that the ZPD is an analytical tool necessary to plan instruction and this is especially true of the final SECTRI structure that was the culmination of the work. This requires consideration of the improvements to be taken on, so that the teacher needs an overview of the whole scheme of work.

The structure of the phase made it possible to focus the work on the student using the learning style to aid in the move from the social manifestation of understanding, characterized in the Complicating [S] section to the internalizing of thought processes in the Taking responsibility [T] stage, (Wertsch, 1985).

Making the teaching and learning practical and manageable was a crucial aspect. The impressive work by Feuerstein (1979) in assessing student ‘modifiability’, as he articulates potential, is by his own admission probably too cumbersome and time consuming to use. The format offered in the SECTRI structure and the associated simplified learning styles sheet do provide a workable method of organizing lessons and schemes of work using this approach. The problem is, as Schon (1985) points out that rigour and practicality do not always go hand in hand and that there must be some compromise. I accept that reducing the styles to simple phrases does make mistakes more likely, but I think this is balanced by the ability of staff and students (with adequate preparation) to identify style tendencies in

commercial material and personal behaviour. It is also the point, which I admit to not convincing my own staff about, that total accuracy is not required, simply a recognition that work can be differentiated along these lines to aid in tackling it.

The emphasis on Taking responsibility [T] and especially on Reflection [R] and considering Improvements [I] stand out as important aspects of this structure. Not only is it a crucial target of theorists like Davydov (1988), Wertsch (1985) and Campione (1989) but it helps to overcome one of the main criticisms of CBET courses such as GNVQ.

Sharp (1996) was concerned that the GNVQ undervalued mental skills and a study into GNVQ effectiveness Meagher (1997) did not even consider the cognitive aspect. Bates (1995) even suggested that the atomistic, outcomes approach actually caused students to withdraw from the broader aims of education. The elements of cognitive development and reflection that are major components of this structure go a long way to ensuring that work becomes learned and not simply completed.

Research Questions 4 and 5: The role of the teacher and necessary level of staff development.

Naturally, there is huge amount of overlap in the areas covered in this conclusion and much has already been said about the role of the teacher and staff development.

The main conclusion is that the teacher is still central to the process developed here. It is the structuring of the course, the dynamic response to students and the skillful use of prompting and varying of work that enable the students to move more effectively from one level of cognitive ability to the other. The evidence and experience of adopting these techniques bears out Backtin's (Holquist, 1981) and Von Glaserfeld's (1995) view that what

they are doing is helping student's come to grips with a social language that is only half-owned by them.

In this model the teacher or Unit manager fulfils a double role in that he or she is a manager and a teacher, yet if the interpretation of a learning organisation as offered by Garratt (1987) is accepted the two may not be too far removed from each other. In his conceptualization of company he offers a double loop (see figure 2.4) that shows the interdependence of the development of the organisation (one stakeholder) and the development of the individual (another stakeholder). Even relationships in the school and the organisation are not too far removed. Handy (1985a) gives a model for several types of management styles that relate well to the student-preferred teaching styles offered by Oates and Harkin (1995).

Reflections on the research and methodology

The greatest 'fundamental' problem in constructing this study was an initial failure to be able to define a 'business culture'. What seemed a simple concept was anything but simple. One problem lay in the diversity of organisations and in the widely different approaches to survival in a global economy. I feel, on reflection that I should have looked at a wider range of organisations from wider afield. I should also have tried to define the concept earlier as it was being unable to come to grips with this that led to the full 'culture' not being put in place until quite late on in the research.

Secondly, the creation of this culture or 'environment' as it is called in the research could have been done better. The best situation would have been to have completed the final run through with both upper and lower sixth fully aware of what was happening and with better supportive paperwork in place. This would mean some recognised way of recording improvements and self reviews rather than, what I was tending to do, record things on a

different form every time. I would also liked to have had the opportunity to improve some of the small but important physical aspects of the GNVQ room. Whilst the room is fairly well appointed in terms of IT the technology was far from perfect. One example of this was email facilities. All students were given email addresses but they were unreliable. This seriously affected the 'business' pen friends links that I had set up between the students and people in local businesses, to the extent that the idea fell into disuse, with less than half the students having some contact.

I also seriously underestimated the time I would need to familiarize staff and students with aspects of the research. This was especially true of the staff in understanding the SECTRI approach and the idea and use of learning styles. I think I would have had more success here if I had abandoned the formal terms earlier and moved over to simple terms such as 'doers, thinkers' etc. and then built in time for enough on-going practice to ensure staff and students were familiar with them.

I would also seriously consider how other staff could have been involved by assisting more with the construction of tasks along the SECTRI lines. This would simply not have happened under the shadow of the inspection but under different circumstances it would not be difficult to use a planned revamp of courses to consolidate understanding and involvement. A perfect situation is on the horizon, with the advent of the new specifications and the conversion of GNVQ advanced into the Vocational 'A' level.

Research Questions 2: The content of the learning and assessment programmes.

The advent of the new specification in September 2000 offers an opportunity to see how well the research transfers. I am confident that the SECTRI structure is flexible enough to be applied to any similar course. A lot of effort was put into avoiding too close a link with the peculiarities of the existing GNVQ. Certainly, the grading themes could be tied into the

development and assessment but the nature of learning styles means that any form of grade or development or assessment criteria could reasonably be substituted. I found little or no problems in delivering any lesson or topic using this structure. I noted earlier that there was some trade off between rigour (in terms of accuracy in identifying styles) and ease of use and I feel that the resultant structure is one that offers cognitive demand and flexibility. Lessons were definitely learned here from Feuerstein's (1979) experience. What is by all accounts a thorough and well-conceptualised idea is in fact too unwieldy to be workable.

Research Questions 7: How to evaluate the success of the research

The last area where I would have approached things differently was in the methodology. Firstly, I would be more selective and less obtrusive with data collection. There was a point in the third year where I felt that I was close to causing 'research' fatigue amongst my Year 13 students, especially at the point where the research instrument was at its most complex. Had I learned earlier to use existing paperwork and review techniques this would not have happened. By the time I was dealing with the last term's work a lot of the information was being collected through assignment paperwork almost without being noticed. It is apparent now that this method is more than just a data collection technique for research. It is actually part of the process of the SECTRI approach. The use of the evaluations and reviews to stimulate discussion on cognitive development and considering strategies for improvement is entirely logical, even fundamental.

I was pleased that I was able to find a way of observing the students during the assignment completion phase of the work. The instrument generated a lot of interest amongst other staff and the students themselves but it does need refinement. The categories were valid enough, having been derived from the research into business organisation, but time slots and segments did cause some problems. I divided the lesson into four segments, but the level of activity often meant that some students were recorded more often

than others and this led to some distortion, although nothing too significant. My only concern in altering it is that it might make it unwieldy when in its present form it is easy and quick to use. The instrument developed from a series of unstructured observational notes and coalesced into its present form because of my perceived need to be able to record interactions and use of the environment. I believe that alternative conceptual frameworks may make this a valid instrument in other situations.

Underpinning the whole project was the version of action research that I developed from the existing models devised by Elliot (1991), Ebbutt (1985), Kemmis (1991) and others. I found it necessary to consider adapting existing approaches because of the evolving nature of my data collection. The introduction of a section entitled 'Revisions in the light of reflection and reconnaissance to data collection techniques' (figure 3.1) was both helpful and significant.

Further Research.

There are four further areas of research that emerge from the work done so far. The first is to see what effect the creation of this 'business' environment for all GNVQ students in the department would have, especially if all staff were teaching to the SECTRI structure. Once the culture is pervading all aspects of the courses run in that area of the sixth form it might be possible to make better judgements on its usefulness and success. It would also follow that the effect on the students could be traced beyond their experience in school.

The second area of research would be to identify the best ways and means of helping staff and students to become familiar with the approaches developed in this research. This could lead on to training suggestions and induction arrangements.

The third area of research would be to see how well the structures and approaches would transfer on to the new specifications. This would offer an opportunity to start with all students in the same environment and offer a reasonable reason and opportunity to construct teaching and learning along SECTRI lines.

Finally, if the environment and the teaching and learning are in place to the extent desired, there may be some value in comparing the teaching and learning between GNVQ and 'A' level students.

The contribution of this research to theory and practitioners.

Contribution to the development of the theory of education.

The most significant contribution to theory offered by this research is the practical combination of two theoretical approaches that often appear separate if not irreconcilable. This action research has explored the practicalities of linking social constructivist approaches with the cognitive approaches at the root of learning style theory.

Within the context of a business culture or environment, the research has shown how Kolb's learning styles can be used to aid student's transition across the zone of proximal development. Hausfather (1996) is adamant that cognitive change does not just happen in a zone of proximal development. To develop

‘...individuals must take active roles in sharing understandings.’
(p4)

He is convinced of the importance of this interaction but also notes that ‘cultural tools’ can assist in this development. Prawat (1996), in discussing the socio-cultural branch of social constructivism, notes that this school of

thought evaluates educational environments in terms of their ‘tool learning’ capability and describes how experts model ‘tool-use’ for novices, highlighting the verbal and physical moves needed to master processes. Whilst there is considerable debate as to the nature of ‘cognitive’ tools, and just how much they are themselves affected by their use, they can be identified here with the use by teachers of learning styles. Cobb (1994), in bringing together theories of constructivism and social constructivism, refers to:

‘the challenge of relating actively *constructing students*, the *local micro-culture* and the *established practices* of the broader community’ (my italics)

Here, I suggest, in this research, is a link between the actively constructing students (GNVQ students); the local micro-culture (interaction within the created business environment) and established practices. (here, I offer our society’s acceptance of categorizing by such things as Learning styles.)

Thus, the unit manager in the GNVQ business environment at King John becomes the expert who models the use of learning styles for students who then find a means of taking responsibility for their own cognitive development. In this ‘personal’ development they are armed with verbal and interactional tools provided by an understanding of their own strengths and weaknesses and strategies to improve in a social context.

It must be acknowledged that it may be described in constructivist revisionist terms as a ‘tools for results’ approach. Vygotsky would suggest that such tools would themselves change over a period of time as the mental capacities they are used to develop, themselves evolve.

Contribution to the practice of education

For the practitioner, discussion on the complexities of social constructivism and the nature of psychological tools may not be as relevant as the possible practical applications of the research.

The work completed I believe, offers a strategy for combining the twin aspects of effectively delivering a business orientated GNVQ course whilst at the same time making it possible to address the students' individual cognitive development. From the discussions in chapter one, it then follows that this will be of benefit to all the relevant stakeholders in vocational qualifications. Firstly, the government and employers who wish to see the values and skills they feel are valuable and necessary in a globalised economy. Secondly, the managerial agencies such as the Examination Award bodies and DfEE who demand the students to reach the standards set out in published specifications. Thirdly, the institution such as schools and colleges who must compete in league tables and finally the staff and students whose aims involve good results and personal achievement.

The practising teacher in a sixth form teaching on GNVQ business orientated courses may find the structure, guidelines and prompts for the teaching and learning phase useful in adopting a similar approach as they appear in a generic form and so should be applicable to any related course.

The research and findings show that an approximation to a business environment, within which business orientated courses can be delivered, can be achieved and that students will respond to it, offering the anticipated 'business-like' behaviour, attitudes and outcomes. Relating to this, the research also details the methods, approaches and practicalities involved in constructing the environment that acts as the 'culture' for this social constructivist approach.

Following on from the theoretical contribution offered earlier in this chapter it is apparent that the construction of the teaching, learning and assessment aspects of this research offer an original, coherent and manageable structure. In particular, the students are offered demanding work in a vocationally relevant way. The timely Ofsted inspection (Ofsted 1999) adds weight to this claim in offering a validation that was not intended as part of the original research design. They are, at all points, given the opportunities to *improve their own performance and cognitive development by taking responsibility and making choices*. These choices are informed by referral to learning styles and supported in social interaction. Periods of reflection are built into the system to encourage the students to consider their route *through to their current level of achievement and how this can encourage improvement*. It offers guidance to the teacher, whose role is seen as crucial, and in all aspects, including major assessment assignments, acknowledges that the student has the potential to develop further, avoiding the dangers of static assessment.

Within the aspect of action research methodology, I feel that consideration of the changing nature of data collection over several AR cycles has been *important in forming the methodological approach*. I also feel that the development of the observation schedule, unique to this research has played an important role in uncovering the behaviour of the students in relation to the aspect of social constructivism being studied.

Action research is, of course, aimed at improving the understanding and practice of the teacher and is related to the context within which the research was undertaken. Vygotsky, (1978) too is careful to point out that any *learning and development of higher cognition is also culturally and therefore contextually dependent*. It follows then that whilst the theoretical aspects may be useful care needs to be taken over the application of the practicalities to other environments and situations.

However, the research does offer a practical model with a valid theoretical underpinning, which may be valid to employ in a variety of vocationally orientated educational contexts.

Notes on organisation of the database

In order to keep some clarity in the organisation of data I have coded the major events and data collection points.

Field Notes. There are two volumes of field notes

Volume 1 [January 1998 – June 1999]

Volume 2 [July 1999 – April 2000]

The reference designation will be by volume, month and year.

e.g. (Vol.1 Sept 99)

Data 1

follows:

Data from teaching and learning aspects will be coded as

Observation:	Obs
Interview	Int
Survey	Survey
Review	Rev
Assignment	Ass
Business	B
Leisure and Tourism	L
Year group	12 or 13
Units	U(number)
e.g. (Rev/21 Sep 98)	L12/U5/Individual reviews)

Data 2

Other data will be designated as (nature)/(date)

e.g. (Staff/20 Mar 99) OD11/Meeting with staff

Database

First cycle of action research

Groups involved: Y12 Leisure and Tourism group, 7 students, mainly Spring 1998. Unit 3 (Marketing in L&T)

Rev/5 Jan 98	L12/U3/Review meetings with students
Rev/13 Jan 98	L12/U3/Review meetings with students
Rev/3 Mar 98	L12/U3/Discussions with students over LSI
Rev/9 Mar 98	L12/U3/Review meetings with students
Rev/17 Mar 98	L12/U3/Review meetings with students
Survey/23 Mar 98	L12/U3/Questionnaires
Int/28 Mar 98	L12/U3/Interview sheets
Int/30 Mar 98	L12/U3/Student follow-up interviews
Staff/26 Feb 98	OD1/Meeting with staff
Staff/5 Mar 98	OD2/Meeting with staff

Second cycle of action research

Groups involved: Y12 Leisure and Tourism group, 8 students, mainly Autumn 1998. Unit 5 (Business Systems in L&T)
Y12 Business group, 7 students, mainly Autumn 1998, Unit 4 (Human Resources)
Y13 Business group, 7 students, mainly Spring 1999, Unit 13 (Administrative Operations)

Rev/21 Sep 98	L12/U5/Individual reviews
Rev/28/Sep 98	L12/U5/Individual reviews
Rev/12 Oct 98	L12/U5/Student kept tracking sheets
Ass/12 Oct 98	L12/U5/Assignment grades and student evaluations
Rev/24 Mar 99	L12/U5/Review of grades over the year
Rev/28 Sep 98	B12/U4/Individual reviews
Rev/1 Oct 98	B12/U4/In-depth review with one student
Rev/7 Oct 98	B12/U4/Individual reviews
Ass/17 Oct 98	B12/U4/Assignment grades and student evaluations
Rev/24 Mar 99	B12/U4/Review of grades over the year
Rev/18 Jan 99	B13/U13/Major written review of lesson
Obs/21 Jan 99	B13/U13/Observation notes on lesson
Ass/22 Mar 99	B13/U13/Assignment grades and student evaluations
Rev/24 Mar 99	B13/U13/Review of grades over the year
Survey/7 Apr 99	OD3/Attitude survey carried out across all years
Staff/7 Sep 98	OD4/Meeting with staff
Staff/10 Sep 98	OD5/Meeting with staff
Students/2 Oct 98	OD6/Meeting with students
Students/14 Oct 98	OD7/Meeting with students
Survey/18 Oct 98	OD8/Questionnaire to all students & students on environment
Students/23 Oct 98	OD9/Meeting with students
Staff/21 Jan 99	OD10/Meeting with staff
Staff/20 Mar 99	OD11/Meeting with staff

Third cycle of action research

Groups involved: Y12 Leisure and Tourism group, 7 students, mainly Autumn 1999. Unit 1 (Investigating the Leisure and Tourism industries)
Y13 Business group, 7 students, mainly Autumn 1999 and Spring 2000. Unit 16 (Living and Working in Europe) and Unit 13 (Admin Operations)

Rev/15 Sept 99	L12/U1/Induction and student reviews
Rev/21 Sept 99	L12/U1/Individual reviews
Rev/28 Sept 99	L12/U1/Group review
Obs/ Oct 99a	L12/U1/Observation records
Ass/15 Oct 99	L12/U1/Assignment grades and student evaluations
Rev/5 Nov 99	L12/U1/Individual reviews

Rev/16 Nov 99	L12/U1/Group review
Obs/Nov 99a	L12/U1/Observation records
Ass/24 Nov 99	L12/U1/Assignment grades and student evaluations
Rev/17 Nov 99	L12/U1/Individual reviews
Ass/21 Dec 99	L12/U1/Assignment grades and student evaluations
Rev/24 Sep 99	B13/U16/Group review
Rev/27 Sep 99	B13/U16/Group review
Rev/29 Sep 99	B13/U16/Individual reviews
Obs/Oct 99b	B13/U16/Observation records
Ass/2 Nov 99	B13/U16/Assignment grades and student evaluations
Ass/2 Nov 99p	B13/U16/Student presentations
Rev/10 Nov 99	B13/U16/Individual reviews
Rev/15 Nov 99	B13/U16/Individual reviews
Obs/Nov 99b	B13/U16/Observation records
Ass/24 Nov 99	B13/U16/Assignment grades and student evaluations
Rev/17 Jan 00	B13/U13/Group review
Rev/2 Feb 00	B13/U13/Individual reviews
Obs/Feb 00	B13/U13/Observation records
Rev/3 Feb 00	B13/U13/Individual reviews
Rev/9 Feb 00	B13/U13/Group review
Staff/16 Jun 99	OD12/Meeting with staff
Staff/6 Sep 99	OD13/Meeting with staff
Students/15 Sep 99	OD14/Meeting with students
Staff/13 Sep 99	OD15/Meeting with staff
Students/27 Sep 99	OD16/Meeting with students
Ofsted/18 Nov 99	OD17/Data from Ofsted preliminary report
Students/26 Nov 99	OD18/Meeting with students
Staff/Feb 00	OD19/Survey on environment

Miscellaneous

Wexp/98-99	Work Experience reports from 1998-99
Int/98-00	Interview data from local companies (Fords, BP, Circa Leisure, Benfleet Leisure services)

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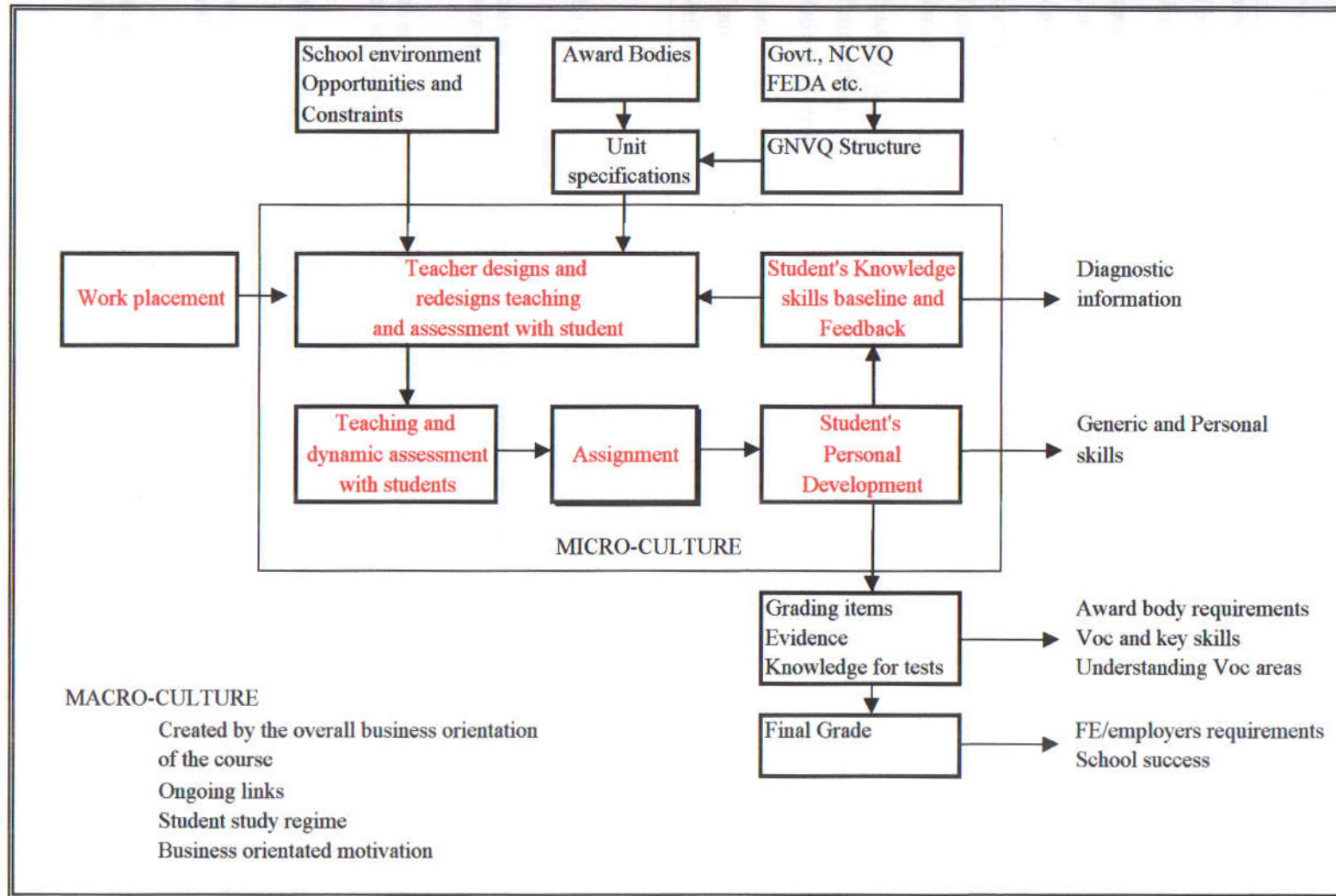
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Appendices



Basic Characteristics of your School

The table below shows some key data for your school in comparison with the national averages for secondary schools. Information is shown for five years to enable trends to be seen. The information is based on Schools Census (Form 7) returns. Figures of pupils known to be eligible for free school meals, pupils with English as an additional language and pupils with special educational needs are often viewed as broad proxy indicators of pupils' prior attainment. It should be noted that the percentage of pupils known to be eligible for free school meals shows the strongest correlation with pupils' attainment.

	1994	1995	1996	1997	1998
Number on roll					
- Your school	1385	1455	1541	1637	1735
- National average	863	885	894	907	915
Percent pupils known to be eligible for free school meals					
- Your school	7.2	7.1	7.2	7.2	5.7
- National average	17.6	18.0	18.3	18.2	17.5
Percent pupils speaking English as an additional language					
- Your school	n/a	n/a	n/a	0.2	0.7
- National average	n/a	n/a	n/a	7.4	7.8
Percent pupils with special educational needs (including statements)					
- Your school	n/a	n/a	n/a	8.6	7.0
- National average	n/a	n/a	n/a	16.6	15.4
Percent pupils with statements of special educational needs					
- Your school	0.2	0.2	0.4	0.4	0.4
- National average	1.7	1.9	2.2	2.3	2.4

The table, based on January 1998 figures, shows that:

your school is much bigger than other secondary schools (1735 pupils compared with the average size nationally of 915 pupils);

the percentage of your pupils known to be eligible for free school meals (5.7 percent) is below the national average;

the percentage of your pupils speaking English as an additional language (0.7 percent) is low;

the percentage of your pupils identified as having special needs (7.0 percent) is below the national average;

the percentage of your pupils with statements of special educational needs (0.4 percent) is well below the national average.

Attainment

This page gives a broad overview of the test and examination results of pupils at your school, both in comparison with all schools and in comparison with similar schools.

1998	In comparison with all schools	In comparison with similar schools
Key Stage 3 National Curriculum tests (average levels)		
English	A	A
Mathematics	A	A
Science	B	C
All core subjects	A	A
GCSE/GNVQ		
5 or more grades A*-C	A	A
5 or more grades A*-G	A	A
1 or more grades A*-G	A	B
Average total GCSE point score per pupil	A	A
GCE A/AS level		
Average point score, pupils entered for 2 or more A levels or AS equivalent	A	n/a

These grades are based on the average NC level achieved by pupils at your school and their GCSE/GNVQ results, together, where appropriate, with their GCE A/AS level results contained on DfEE/OFSTED databases, and as shown in the rest of this PANDA Report. The grades shown in bold type are those that would normally be used in the Parents' Summary of the Inspection Report (except where the cohort size is less than five pupils) if the school was inspected under Section 10 of the School Inspection Act 1996.

The grades have the following descriptive meaning:-

- A*: pupils' results are **very high** in comparison with the national average/average for similar schools;
- A: pupils' results are **well above** the national average/average for similar schools;
- B: pupils' results are **above** the national average/average for similar schools
- C: pupils' results are **average** (i.e. in line with) the national average/average for similar schools
- D: pupils' results are **below** the national average/average for similar schools
- E: pupils' results are **well below** the national average/average for similar schools
- E*: pupils' results are **very low** in comparison with the national average/average for similar schools

These descriptions are further explained in the PANDA Annex (section 6). Information on the relevant grade boundaries is also included at Appendix A to the PANDA Annex. (You may find this latter information helpful if there are errors in the data included in this PANDA report.)

Detailed analysis of your pupils' results appears in the following pages, including information on the performance of boys and girls and comparisons of pupils' results with those of pupils in schools where pupils have similar backgrounds.

Post 16

The figures in the table below show your candidates' results in relation to national averages for candidates aged 16 and over.

GCE A/AS Level/Advanced GNVQ					
Average Point Score	1995	1996	1997	1998	1996/8
Candidates entered for less than two GCE A Levels or AS equivalent					
School - Number of candidates	n/a	n/a	3	2	5
School - Average point score per candidate	n/a	n/a	5.3	1.0	3.6
England - Average point score per candidate	2.7	2.7	2.7	2.8	2.7
School difference	n/a	n/a	2.6	-1.8	0.9
Candidates entered for two or more GCE A Levels or AS equivalent					
School - Number of candidates	n/a	31	37	59	127
School - Average point score per candidate	n/a	15.3	13.1	18.9	16.4
England - Average point score per candidate	15.9	16.8	17.1	17.6	17.2
School difference	n/a	-1.5	-4.0	1.3	-0.8
All candidates entered for Advanced GNVQs					
School - Number of candidates				10	
School - Average point score per candidate				13.2	
England - Average point score per candidate				10.9	
School difference				2.3	
Other Vocational Qualifications 1998					
(Candidates aged 16-18)	Intermediate		BTEC		IB
	Level		National		Diploma
Number of candidates entered in school	0		0		0
Percentage of candidates achieving qualifications	n/a		n/a		n/a
England	72.5		82.7		79.1

Based on the most recent year, 1998:

The average A/AS level point score of candidates entered for two or more GCE A levels or AS equivalent was well above the national average.

On the basis of the average for the last three years:

The average A/AS level point score of candidates entered for two or more GCE A levels or AS equivalent was below the national average.

The GCE A/AS level point score per pupil is calculated using the scale A = 10, B = 8, C = 6, D = 4 and E = 2 for A-level results, and A = 5, B = 4, C = 3, D = 2 and E = 1 for AS-level results. In calculating the number of A-levels taken by a pupil, one AS-level is included as half an A-level. Point scores for Advanced GNVQs are calculated using Distinction = 18, Merit = 12 and Pass = 6.

In evaluating candidates' standards of attainment in sixth forms, it can be useful to look at the GCE A/AS level results of candidates in the context of their prior GCSE achievements. Information to assist you in this respect was made available in DfEE Statistical Bulletin 3/98. You may already have value added information based on comparisons of your candidates' achievements with their prior GCSE achievements: these data may be a source for comparisons of candidates' progress in your school with candidates in other schools.

Essex education authority sixth form and colleges

	16-18 year olds on school roll	AVERAGE POINTS SCORE		Combined average per student
		per A/AS entry	Advanced GNVQ	
ESSEX AUTHORITY AVERAGE		5.2	9.9	16.5
ENGLAND AVERAGE		5.5	9.9	17.1
Basildon College	704	2.5	7.4	7.4
Billericay School	260	4.5	6.5	15.9
Bromfords School, Wickford	84	3.7	-	12.8
Chalvedon School, Basildon	163	4.9	11.3	12.3
Furtherwick Park, Canvey	57	4.7	-	16.2
Greensward College, Hockley	173	5.1	-	20.5
King Edmund School, Rochford	141	4.3	-	12.2
King John School, Benfleet	223	5.1	15.1	17.2
Mayflower County High, Billericay	283	5.6	8.6	15.3
SEEVIC College, Benfleet	1465	4.7	9.8	16.3
William de Ferrers, St Woodham	225	5.5	-	15.5

Key to school sixth form informationAverage points score per entry:

Indicates the average grade achieved. For A levels, a grade A is worth ten points, B eight points, C six points, D four points and E two points. The points are halved for AS levels

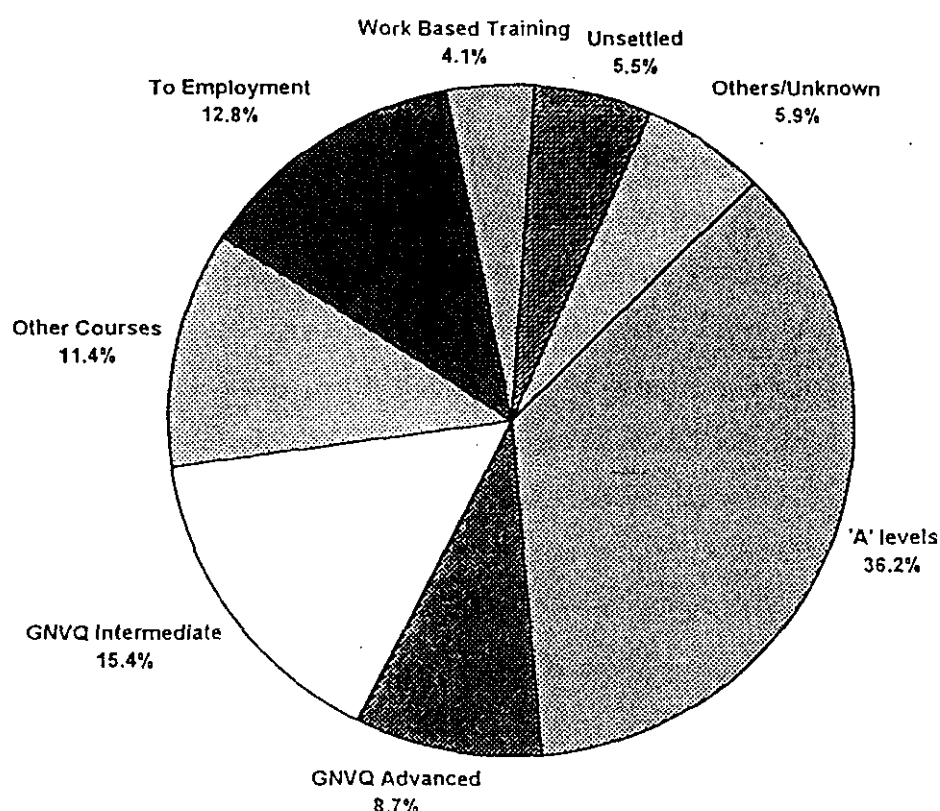
For GNVQs, a pass is worth six points, a merit is worth twelve points and a distinction is worth eighteen points.

Combined average per student

The total number of points achieved at the campus divided by the amount of students. This figure gives a good indication of how well the average students performed.

Source: Essex education authority, 1999

Destinations of 1998 Year Eleven Pupils from Essex Schools



Destination From Year Eleven	No. of Pupils	Percentages		
		1998	1997	1996
'A' level course	6,733	36.2%	34%	34%
GNVQ Advanced	1,610	8.7%	8%	9%
GNVQ Intermediate	2,859	15.4%	16%	16%
Other Courses	2,122	11.4%	11%	9%
All Further Education	13,324	71.7%	69%	68%
Employment	2,378	12.8%	11%	10%
Work Based Training	766	4.1%	5%	6%
Jobseekers	977	5.3%	3%	4%
Unsettled	49	0.2%	2%	1%
Others & Not Known	1,098	5.9%	11%	11%
TOTALS	18,592	100%	100%	100%

Data based on destination of pupils as on 09.11.98. Essex Careers & Business Partnership Ltd.

Post Fordism

A sea-change has taken place in the economic world this century. This change became apparent to some in the early 1970s and has accelerated into a concern for all in the 1990s. In essence, two things have happened that have undermined both the nature of manufacturing, supply and markets and the historical basis of western economies. The first was technological. Suddenly, the concept of Ford's mass production techniques offering 'any colour as long as it was black' gave way to robot construction lines, core and peripheral workers, multiskilling and the niche market offer of 'any colour you want, in any quantities, however often you want it, by tomorrow at the latest.....'

The second was the realisation by the eastern 'tiger' economies that the new technology and new practices were a way for them to use efficiency and flexibility to combat the cheap resources and markets accessible to (and, of course, created by) the ex-colonial western economies. Almost overnight the traditional 'tall pyramid' management structures, union based work demarcations, labour controlled apprenticeship systems and even company pension schemes were seen to be obstacles to the changes felt necessary to compete with the new order. Two terms, often overlapping and open to reinterpretation have emerged to describe this response to this new order. One, embodying the benefits of the new practices and advocating the opportunities for education, society and industry is known as 'Post Fordism', the other which tends to see the danger of a new servitude arising and the whole exercise as one of creating a greater polarisation in social opportunity and wealth is referred to as 'Neo-Fordism.'

These pressures and the struggle to conceptualise a future of 'flexible workers', (Atkinson and Meager, 1985) and uncertain employment patterns, has led to a variety of responses from commentators. These range from the depressingly pessimistic predictions of Brosio (1988) and Wringe (1991) and the companion denouncement of UK training policy by Finegold and Soskice (1988) with its condemnation of a 'low skills equilibrium' to the more open discourse theory approach of Edward (1995). His more optimistic banner has been taken up by the cautionary contribution of Brown and Lauder (1995) in their exhortation to avoid losing the potential and possibilities of Post Fordism in the current reconstruction of education and training. They argue for the

development of a collective intelligence through a comprehensive national framework that will avoid the increasing social and economic polarisation they equate with, what they describe as, Neo-Fordism. This is a development from a point made by Gleeson (1992) when he stressed the importance of the government interventions in this area by saying ‘ From this viewpoint Further Education and Training is not simply something which prepares trainees for existing jobs in the labour market but it is also part of the parcel of job creation itself’.

Element 5.2: Investigate and evaluate employment

PERFORMANCE CRITERIA

A student must:

- 1 identify and explain **types of employment**
- 2 **evaluate** the effects of changes in **types of employment**
- 3 identify **implications of employment trends** in the local economy
- 4 **evaluate** the **implications of employment trends** in the local and national economy

RANGE

Types of employment: self-employed, full-time, part-time, permanent, temporary, contract, non-contract; skilled, unskilled, home-working

Evaluate in terms of: employee needs (pay, benefits, career progression opportunities, job security, working conditions); business needs (to control costs, to maintain profits, to maintain levels of productivity, to maintain customer satisfaction)

Implications for: employment, unemployment; de-skilling, re-training; male employment, female employment

Employment trends: national levels of employment, regional levels of employment; shift from manufacturing to service industries; full-time and part-time; permanent and temporary; skilled and unskilled; male and female; growth of the 'underground' economy; differences in pay

Evaluate in terms of: effects on individuals in employment; effects on the unemployed, effects on communities; effects on government revenue and expenditure

EVIDENCE INDICATORS

A report which identifies and explains types of employment, and evaluates how at least four types of employment have changed. It should evaluate the effects of changes in terms of employee and business needs.

The report should illustrate national and regional trends in:

- employment in one manufacturing and one service industry
- full-time and part-time employment
- male and female employment
- differences in pay

and explain the implications for:

- employed or unemployed people
- communities
- government revenue and expenditure.

AMPLIFICATION

The 'underground' economy (PC3 range) is economic activity which is undeclared.

Effects on individuals in employment (PC4 range) in terms of their personal relationships, attitudes, health, and income and spending power.

Effects on the unemployed (PC4 range) their skills and knowledge may dissipate incurring costs. Their potential income and output is lost to the economy.

Effects on communities (PC4 range) in terms of its general feeling of: well-being, prosperity/poverty, health and security.

Effects on government revenue and expenditure (PC4 range) as employment increases the amount of tax collected increases and the costs of benefits falls, and vice versa. Students are not expected to go beyond this conceptual level of understanding.

GUIDANCE

The changes in production which students have understood from Element 5.1 will generally inform their understanding of the ways in which employment is also changing. Information on the effects of employment on individuals and communities should come from a range of sources, including the students' personal knowledge and experience. Considering employment trends could provide useful background information when students prepare a personal plan for Element 8.3.

Students should use a variety of information sources so that they can compare the appropriateness of information from different sources. The changing national and regional patterns of employment could be explored using UK and EU information available as computer-based data (eg SECOS). Local councils and Training and Enterprise Councils (TECs) are valuable sources of local data. The *Employment Gazette* includes an extensive breakdown of employment statistics.

GNVQ Grading Criteria - Advanced Level



Theme 1: Planning

The way a student lays down how s/he will approach and monitor the tasks/activities undertaken during a period of learning.

Criterion	Merit	Distinction
1 Drawing up plans of action.	Student independently draws up plans of action for a series of discrete tasks. The plans prioritise tasks within the given time period	Student independently draws up plans of action for complex activities The plans prioritise tasks within the given time period
2 Monitoring courses of action	Student independently identifies points at which monitoring is necessary and recognises where revisions to courses of action are necessary. Appropriate revisions to plans are made with guidance from the Unit manager	Student independently identifies points at which monitoring is necessary and recognises where revisions to courses of action are necessary. Appropriate revisions to plans are made independently

Theme 2: Information seeking and information handling

The way the student identifies and uses information sources, and checks and establishes the validity of the information obtained from these sources

Criterion	Merit	Distinction
3 Identifying and using sources to obtain information	Student independently identifies, accesses and collects relevant information for a series of discrete tasks. Student identifies principle sources independently. Additional sources are identified by the Unit manager	Student independently identifies, accesses and collects relevant information for complex activities Student uses a range of sources and justifies their use.
4 Establishing the validity of information	Student independently identifies information which needs checking for validity. Student checks validity of information using given methods	Student independently identifies information which needs checking for validity. Student independently selects and applies appropriate methods for checking validity

Theme 3: Evaluation

The way the student, retrospectively reviews: the activities undertaken the decisions taken in the course of that work; alternative courses of action which s/he might have adopted; and examination of the implications of particular courses of action

Criterion	Merit	Distinction
5 Evaluating outcomes and alternatives	Student judges outcomes against original criteria for success: identifies alternative criteria that can be applied in order to judge success of the activities	Student judges outcomes against original criteria for success and identifies and applies a range of alternative criteria in order to judge success of the activities
6 Justifying particular approaches to tasks/activities	Student justifies approaches used: Indicates that alternatives were used and considered	Student justifies approaches used, basing justification on a detailed consideration of relevant advantages and disadvantages. Alternatives and improvements are identified

Theme 4: Quality of Outcomes

The way the student synthesises knowledge, skills and understanding and demonstrates the command of the 'language' of the GNVQ area.

Criterion	Merit	Distinction
7 Synthesis	Student's work demonstrates an effective synthesis of knowledge skills and understanding in response to discrete tasks	Student's work demonstrates an effective synthesis of knowledge skills and understanding in response to complex activities
8 Command of 'Language'	Student's work demonstrates an effective command of the 'language' of the GNVQ area at Advanced level	Student's work demonstrates an fluent command of the 'language' of the GNVQ area at Advanced level

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ABOUT THIS UNIT

You will learn in this unit that businesses exist to produce goods and services. Anyone thinking of starting their own business or joining an existing business needs knowledge of what makes businesses work successfully and to know how to apply that knowledge to a particular business. For instance, imagine a salesperson who doesn't know what his business is trying to achieve or what makes it different from its competitors. Imagine a production manager who is unable to explain to staff what quality means, or does not understand the term 'an autocratic manager'.

This unit is also about exploring the world of business. As part of the learning process you will encounter and evaluate information provided by businesses themselves and have the opportunity to gather your own information first hand from at least one business.

In this unit you will learn about different types of businesses; their objectives, structures and cultures. You will report on a business drawn from the public or private sectors, and find out how the objectives, organisational structures and cultures of businesses affect the way it works. You will also learn how all these different aspects of a business interact within the business. You will learn about the different functional areas within businesses and how these operate together to allow businesses to make products or offer services that contribute to the wealth of the economy as a whole. You will also learn about the variety of processes by which products and services are created and how and why businesses try to assure the quality of their products or services.

This unit will give you knowledge and skills that you will draw on when you are working on Unit 2: The competitive business environment (Advanced) and Unit 4: Human resources (Advanced). There are also links with Unit 3: Marketing (Advanced), Unit 5: Business finance (Advanced) and Unit 6: Business planning (Advanced).

This unit will be assessed through your portfolio work only. The grade awarded will be your grade for the unit.

WHAT YOU NEED TO LEARN

Business objectives

Businesses exist to provide goods and services. All businesses, whether they aim to make a profit or not, have to make products and/or provide services that satisfy customer wants or needs. Businesses set themselves objectives that govern the way they operate. You need to be able to identify and explain different objectives for businesses, including:

- making a profit (or surplus)
- surviving
- increasing sales or market share
- providing services to the community
- producing high quality products or offering high quality services
- developing a skilled workforce
- fulfilling charitable or non-profit objectives such as caring for the environment.

All businesses have particular attitudes, values and beliefs that make up their culture. You need to be able to identify and describe the economic, social, environmental and ethical influences that contribute to a business' culture and describe different business cultures. You should also be able to explain how the culture of a business may affect its objectives and structure and help or hinder the success of the business.

Types of businesses

Business can be classified in different ways. You need to know whether a business is in the voluntary, private or public sectors. You need to understand the differences between the types of business listed below:

- sole trader
- partnership
- private limited company
- public limited company
- co-operative
- not for profit or a charity
- franchises.

You need to understand the circumstances in which each type of business organisation is likely to be appropriate. You will also learn that the type of business appropriate will be to some extent related to the size of the business. These are usually categorised as small, medium and large businesses. This will require you to consider businesses operating internationally and globally as well as those operating in national and regional or local markets.

You need to recognise that businesses can change their types of ownership and identify the reasons for such changes. You also need to understand the implications of changes in business ownership in terms of:

- limited and unlimited liability
- access to different sources of finance
- control
- use of profits
- legal liabilities.

Organisational functions

All businesses combine 'factors of production' to produce their product(s) and/or service(s). You need to understand how a business uses labour (people), capital (machinery and equipment) and land or buildings.

Combining these factors of production also means that the business has to carry out a range of functions. These include:

- finance
- production
- *human resources*
- marketing
- administration
- research and development.

You need to understand the activities and characteristics of each function and how each functional area contributes to the running of a business. You will need to see how well these functions are carried out as this affects the success and efficiency of the business and helps it to meet its objectives. You also need to be able to explain the connections between the different functional areas.

Organisational structures

Businesses are structured in different ways according to the way they operate, and according to their culture. You need to understand the differences between the following types of structures:

- tall, flat and matrix
- hierarchical, centralised and decentralised.

You need to understand how the structure of a business can affect the way it works and performs and how the market in which a business operates can influence the organisational structure that develops inside a business. This will involve a consideration of the process known as de-layering and the move towards flatter organisational structures in businesses that operate in fast-changing, dynamic markets.

You need to understand the difference between autocratic, democratic and consultative management styles and how these styles may be influenced by organisational structure. You need to understand how the organisational structure may reflect the styles of management that exist within an organisation. You also need to understand how the culture of a business and its organisational structure may affect each other.

Communication

Businesses need to communicate with a range of different individuals and organisations including their customers, their competitors and their suppliers, as well as their own employees. Good communication within a business is essential if that business is to operate effectively. You need to be able to identify the communication channels that exist within businesses and the effect that these have on the quality of communication. You should be able to compare and contrast different channels of communication including:

- internal and external
- formal and informal
- upward and downward
- open and restricted.

It is important to be able to understand the relationship between effective communication and the achievement of business objectives.

You will learn that information and communication technology has had a dramatic effect on the way communication takes place in business. You need to be able to identify and understand where ICT has changed the means of communicating within a business, and analyse the strengths and weaknesses of current developments in ICT for business.

Production and quality

Businesses change inputs (such as labour and materials) into outputs in order to produce goods and services that meet the needs of their customers. You need to be able to track the production process in order to understand the physical transformations and activities that lead to the finished product or delivery of a service.

From learning about the production process you will understand the way in which value is added to a product throughout. You will need to be able to distinguish between these main ways of adding value:

- combining inputs to create a physical change
- combining inputs to create a service
- meeting customer requirements.

You will need to know that quality is an important factor throughout the production process. You need to be able to distinguish between quality control and quality assurance. Quality control means inspecting or testing quality at various points in the manufacture of a product or delivery of a service. It is usually applied during or after production. However, many businesses use organisation-wide approaches to quality, that make quality the responsibility of everyone at all stages of the production of the goods or services. This is quality assurance (QA).

There are numerous quality control and assurance systems including:

- Total Quality Management (TQM)
- quality circles
- self-checking or inspection
- ISO 9000
- benchmarking
- training and development.

You need to know in which circumstances different quality control and assurance systems might be appropriate. You need to be able to describe their relative advantages and disadvantages and understand how one system works in detail.

ASSESSMENT EVIDENCE

You will be expected to produce a detailed business report of one medium size or large business. Your well planned business report should contain:

- the objectives, organisation, structure, culture and communication channels that operate within the business
- an examination of how these factors interrelate in a way that can affect the success of the business
- an explanation of how quality assurance and control systems help the business to add value to its products
- consideration of alternative methods and quality assurance and control
- consideration of how well the business is meeting its objectives
- an explanation of the impact of ICT upon the internal and external communications of the business.

To achieve a grade E your work must show:	To achieve a grade C your work must show:	To achieve a grade A your work must show:
<ul style="list-style-type: none"> • the classification of the business according to its ownership, and an explanation of the benefits and constraints of this type of ownership • a clear description and explanation of the objectives of the business • a description of the functional areas that exist in the business, and an explanation of how they help the business to meet its objectives • a description of the management style and culture of the business • a description of the use of ICT for internal and external communications of the business • a clear explanation of how the production process and quality assurance/control system employed by the business helps it to add value to its product or service. 	<ul style="list-style-type: none"> • judgements about how successfully the business is meeting its objectives • analysis of how the organisational structure, culture and management style of the business affects its performance and operation and helps it to meet its objectives • a detailed analysis of the impact of ICT upon the internal and external communications. 	<ul style="list-style-type: none"> • how the organisational structure, culture and management style inter-relate in the business and evaluate their impact and that of ICT on the performance of the business • an evaluation of an alternative approach to quality control or quality assurance and the effects it could have on the functions of the business and how it achieves its objectives.

Teaching strategies

This unit is designed to encourage students to learn about essential and transferable concepts used to understand and explain how businesses operate. It is also intended to provide students with a thorough grounding in approaches to learning typical of the whole learning programme, such as planning independent work, collecting primary data, and presenting their findings in an appropriate business-related format, in this unit, a business report. The student should be encouraged to show how they have planned the report on the business.

Students will need to develop their knowledge and understanding of business culture, objectives, business types, organisational structures and the importance of communication. This will provide opportunities for students to apply their developing understanding in order to build a picture of the different factors that can affect the performance of the business investigated. Students will also have to draw on knowledge of other businesses in order to explain, compare and evaluate aspects of the business they are reporting on. Teaching strategies should be used that maximise opportunities for students to develop competency, and confidence in the range of skills that will be assessed.

A variety of teaching strategies should be used. Texts, teachers exposition, and a broad range of published materials can be used to develop a basic understanding. Student research of three businesses is likely to be more experimental, and should provide opportunities to develop skills of independent learning – planning, information seeking, and evaluation.

Undertaking the in-depth business report will provide opportunities to plan, organise and collect primary data. ‘Work experience’, and other contacts with local business could be used for this purpose. Secondary data, collected by students or provided by teachers can also be used as long as students can develop skills of independent learning.

Students will need help in selecting an appropriate business for their business report. Teachers and tutors will need to check that the actual business covers the full scope of the unit, which is why a medium or large business is required. There is no specific size or type of business specified but students will need access to the full range of functional areas, an organisational structure with sufficient scope for exploring some of the complexities of management and management styles, communication channels, and aspects of production which allow the investigation of quality assurance and control systems. A local branch of a large company is possible provided that students can gain access to detailed information about the company as a whole rather than just its branch operations.

Quality control and quality assurance can be highly complex topics and an in-depth approach is not required. Teachers and tutors should encourage an overview which emphasises the importance of quality measures and also shows some of the difficulties of implementing them, such as time, cost, training etc. A broad understanding of these approaches is frequently dealt with in texts or articles. Some of the more comprehensive approaches such as TQM are difficult to tackle in a realistic way and should be left for another opportunity such as an optional unit on quality management. Students also need to focus on how one approach to quality control or quality assurance affects one operation in the business they are studying. This could be quite small-scale.

Sensitivity of information

This unit involves students evaluating a business organisation. It is essential that students understand that any evaluation must be based on fact and where appropriate, the application of appropriate business theory. It must be stressed to students that organisations may be sensitive to any criticism that is made of their systems and hence any evaluations must be handled with care. It is appreciated that in many cases organisations will not see the

evaluations. However, when they do it is important to appreciate that 'host' organisations bring to GNVQ courses and that they continue to provide this valuable support. It is hoped, of course, that in the cases where organisations do see the students work that the students may make some useful suggestions.

Other issues

Delivery of this unit can contribute to the students' understanding of spiritual, moral, ethical, social and cultural issues in the following manner:

- *moral/ethical*: understanding the general principles of the Race Relations Act, the Sex Discrimination Act and the Equal Pay Act can lead to discussions on moral/ethical issues
- *social/cultural*: understanding issues in human resource planning such as the economic climate and skills shortages can lead to discussions on social/cultural issues.

Delivery of this unit can also raise students' awareness of environmental issues, health and safety considerations and European developments consistent with relevant international agreements in the following manner:

- *health and safety*: the general principles of health and safety at work with respect to employment rights can lead to discussions on and health and safety issues.

Assessment strategies

Students are required to produce a business report that will provide opportunities of choosing different and appropriate ways of presenting information. For example, organisation charts, illustrations (such as tables, diagrams, pie charts and flow charts). Oral presentations can be used for assessment purposes.

When grading student evidence you should consider the following general qualities that distinguish between the grades:

- increasing depth and breadth of understanding
- increasing coherence, evaluation and analysis
- increasing independence and originality
- increasing objectivity and critical understanding.

Grade E

At this level a student will be able to describe the nature and organisation of each business, and show evidence of being able to undertake simple comparisons of management style, provide some explanation of their findings and begin to analyse the impact of ICT. However, understanding of concepts and the functional areas within an individual business is likely to be compartmentalised. The report is moderately well organised and covers all obvious, major aspects of the business.

Grade C

A Grade C student will show competence in making judgements about the performance of the business, provide more detailed explanations of the inter-relations between cultures and structures, types of ownership and structures and so forth. They complete their business report effectively according to plan. They complete the business report effectively and it is well organised.

Grade A

At this level a student will demonstrate a clear and comprehensive overview of the strengths and weaknesses of the business, and of the inter-relations between the different business concepts. Confident judgements supported by appropriate evidence and analysis will be made. Students should also draw on comparisons of aspects of other businesses in order to evaluate the effectiveness of the target business. The report is very well organised to show a

good understanding and prioritisation of significant issues with effective use of detail when evaluating the impact of organisational structure, culture, ICT and management style on the organisation, students, to complete a valid evaluation need not find anything negative to say (as this may well be difficult within a highly effective organisation). However, their evaluation must be justified, ie if all the impact is effective, they must state why. Similarly, students may not find a better system of quality control assurance but they will have to consider alternative and state why the current systems are effective.

Resources

Centres should aim to draw on the following kinds of resources for their students:

- visits to businesses and interviews with employees
- talks given by a well-informed employee about the work of one or more functional area
- business materials, such as marketing brochures
- case studies produced by the centre
- case study material from the Internet or a commercial source (for example a resource pack or video)
- newspapers both national and local, especially business sections.

There is a wide range of textbooks aimed at Advanced Business students. These include materials published by schools and colleges, educational consortia and so on, as well as the major educational publishers.

Printed materials from companies, especially large ones, are often presented well for young people. These materials may be part of a marketing and public relations strategy. Company reports can be used, but because of the complexity of technical language, edited sections might be more appropriate.

Consortia of schools and colleges can work together to produce common materials. Local Education Business Partnerships may facilitate such activity and also provide opportunities for teachers to spend time with local companies to produce resources useful for case study work.

FEDA has published an extensive list of materials for Business GNVQs that is available by calling 020 7962 1006.

KeySkills

This guidance highlights the most relevant Key Skills opportunities in this unit. It contains suggestions only. You will need to check that students have produced all the evidence required to meet part A **and** part B of the Key Skills specifications. Students may need to develop additional evidence elsewhere to meet fully the requirements of the Key Skills specifications.

Guidance is referenced in two ways:

K – keys to attainment

These are Key Skills or aspects of Key Skills which students should achieve as they meet the vocational requirements of the units. Only part B of the Key Skill is highlighted – you will need to check that students achieve part A.

S – signposting

These are opportunities that can be incorporated naturally into the learning programme.

COMMUNICATION, LEVEL 3		Key Skills Reference
When students are:	They should be able to develop the following Key Skills evidence:	
<ul style="list-style-type: none"> discussion of the management style and culture of the business describing the functional areas in a group before submitting report researching information for the report producing the report 	C.3.1a Contribute to a group discussion about a complex subject.	S
	C3.1b Make a presentation about a complex subject, using at least one image to illustrate complex points.	S
	C3.2 Read and synthesise information from two extended documents about a complex subject. One document should include at least one image to illustrate complex points.	S
	C3.3 Write two documents about complex subjects. One piece of writing should be an extended document and include at least one image.	S
INFORMATION TECHNOLOGY, LEVEL 3		Key Skills Reference

When students are:	They should be able to develop the following Key Skills evidence:	
<ul style="list-style-type: none"> planning to collect appropriate information perhaps from the Internet planning to collect appropriate information perhaps from the Internet describing the organisational structure may include the use of software and the information can be adapted for a graph or chart 	IT3.1 Plan and use different sources to search for, and select, information required for two different purposes.	S
	IT3.2 Explore, develop and exchange information and derive new information to meet two different purposes.	S
	IT3.3 Present information from different sources for two different purposes and audiences. Your work must include at least one example of text, one example of images and one example of numbers.	S

IMPROVING OWN LEARNING AND PERFORMANCE, LEVEL 3		Key Skills Reference
When students are:	They should be able to develop the following Key Skills evidence:	
<ul style="list-style-type: none"> liaising with their tutor and with the organisation in the development of the plan 	LP3.2 Use your plan, seeking feedback and support from relevant sources to help meet your targets, and use different ways of learning to meet new demands.	S
<ul style="list-style-type: none"> liaising with their tutor to develop the plan 	LP3.3 Review progress establishing evidence of achievements, and agree action for improving performance.	S
WORKING WITH OTHERS, LEVEL 3		Key Skills Reference
When students are:	They should be able to develop the following Key Skills evidence:	
<ul style="list-style-type: none"> beginning to plan their investigating and liaising with members of the organisation 	WO3.1 Plan the activity with others, agreeing objectives, responsibilities and working arrangements.	S
<ul style="list-style-type: none"> developing their report and liaising with the organisation and their tutor 	WO3.2 Work towards achieving the agreed objectives, seeking to establish and maintain co-operative working relationships in meeting your responsibilities.	S
<ul style="list-style-type: none"> judging whether their plan was carried out effectively 	WO3.3 Review the activity with others against the agreed objectives and agree ways of enhancing collaborative work.	S

Kolb					
Observes events	Integrates into theories	Derives Hypothesis	Tests in Action	Creates new events and experiences	New observations used to modify theories/adjust action
Hedegaard					
Motivation & Transf of needs essential	Created situation for group activity	Students constantly forced to act	Research activity central	Gradually led to critical evaluation	
Davydov					
Change or produce problem so general relationships easily seen	Modelling of relationships	Transforming so that relationships are clear	Creation of new tasks from problems	Control of own learning Evaluation	
Hedegaard					
Delineation of problem	Problem solution and problem construction				Evaluation and control
Campione					
Teaching activity models target	Strategies modelled and practiced in actual contexts as needed	Students made aware of nature of strategies and when/how to apply	Discussion: students disclose/highlight problems openly	Responsibility for activity transferred to student asap	
Wertsche					
Childrens situation definition so different from adults that comm difficult	Not so restricted by child's limited situation definition but does not understand the notion of goal adirected action		Can make inferences needed to interpret adults directions but still relying on adult	Child takes resp. for goal directed task	
Wertsche concept development					
words initally index contextualized	Complexes, clusters groupings	Psuedo concepts		highest form (concepts) decontextualized linguistic organization	
Feuerstein					
To assess modifiability provide conditions aimed at producing change in individual	Search for best ways to modify by uncovering strengths/weaknesses preferred learning styles	To determine amount of teacher investment	Does modifiability allow use of concepts in other areas Generalising	How much modifiability gives access to higher levels	

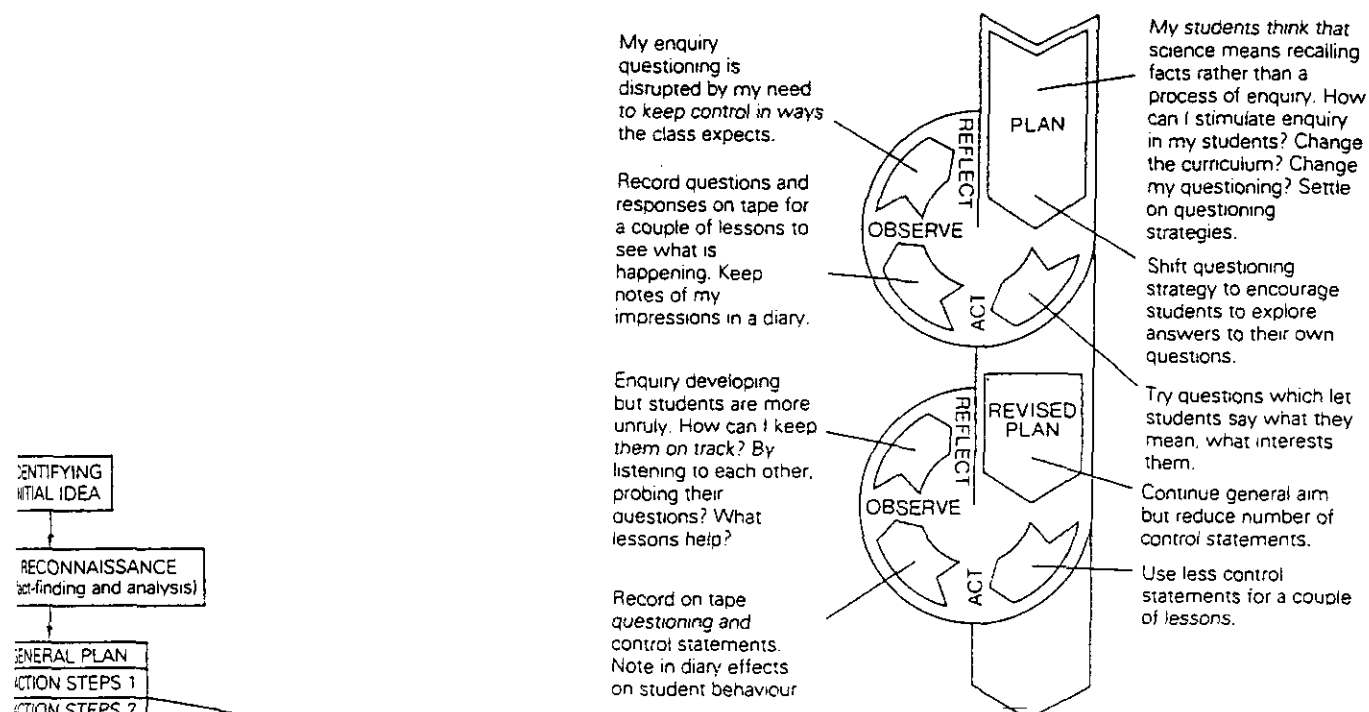


Fig. 4.1 The 'action research spiral' (based on Kemmis and McTaggart 1988: 14).

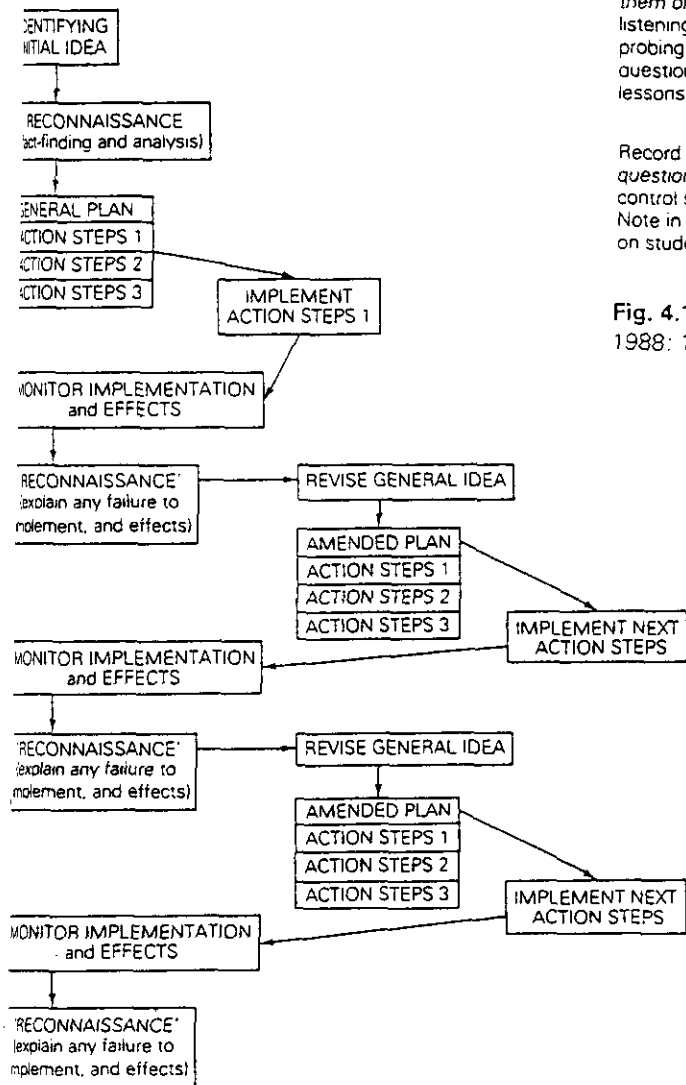



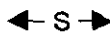






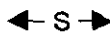






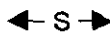





Fig. 4.2 Elliott's action research model (from Elliott 1991: 71).

Source:
Macintyre

NIXON, J. (1981) *A teacher's guide to action research*, London, Grant

Context		Atmosphere																									
First quarter	Second quarter	Third quarter	Fourth quarter																								
<div>Code</div> <table><tr><td>Manager directed</td><td></td><td>Students working on own</td><td> 1, 2, 3.</td></tr><tr><td>Whole group</td><td>X</td><td>Students interacting</td><td>S + S 1, 2, 3.</td></tr><tr><td>Use of communications</td><td>(S) 1, 2, 3.</td><td>Students taking responsibility</td><td> 1, 2.</td></tr><tr><td>Use of technology</td><td>[S] 1, 2, 3.</td><td>Movement with purpose</td><td> In and out</td></tr><tr><td>Student interaction with M</td><td>S+  1, 2, 3.</td><td>Decision</td><td></td></tr><tr><td>Student interaction with O</td><td>S+ </td><td>Not on task (underscore)</td><td><u>S</u></td></tr></table>				Manager directed		Students working on own	 1, 2, 3.	Whole group	X	Students interacting	S + S 1, 2, 3.	Use of communications	(S) 1, 2, 3.	Students taking responsibility	 1, 2.	Use of technology	[S] 1, 2, 3.	Movement with purpose	 In and out	Student interaction with M	S+  1, 2, 3.	Decision		Student interaction with O	S+ 	Not on task (underscore)	<u>S</u>
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Student interaction with O	S+ 	Not on task (underscore)	<u>S</u>																								

Student's preferred learnings style derived from Haygroup Self-Scoring Inventory (LSI). Students shown by initial (eg 'Sh')

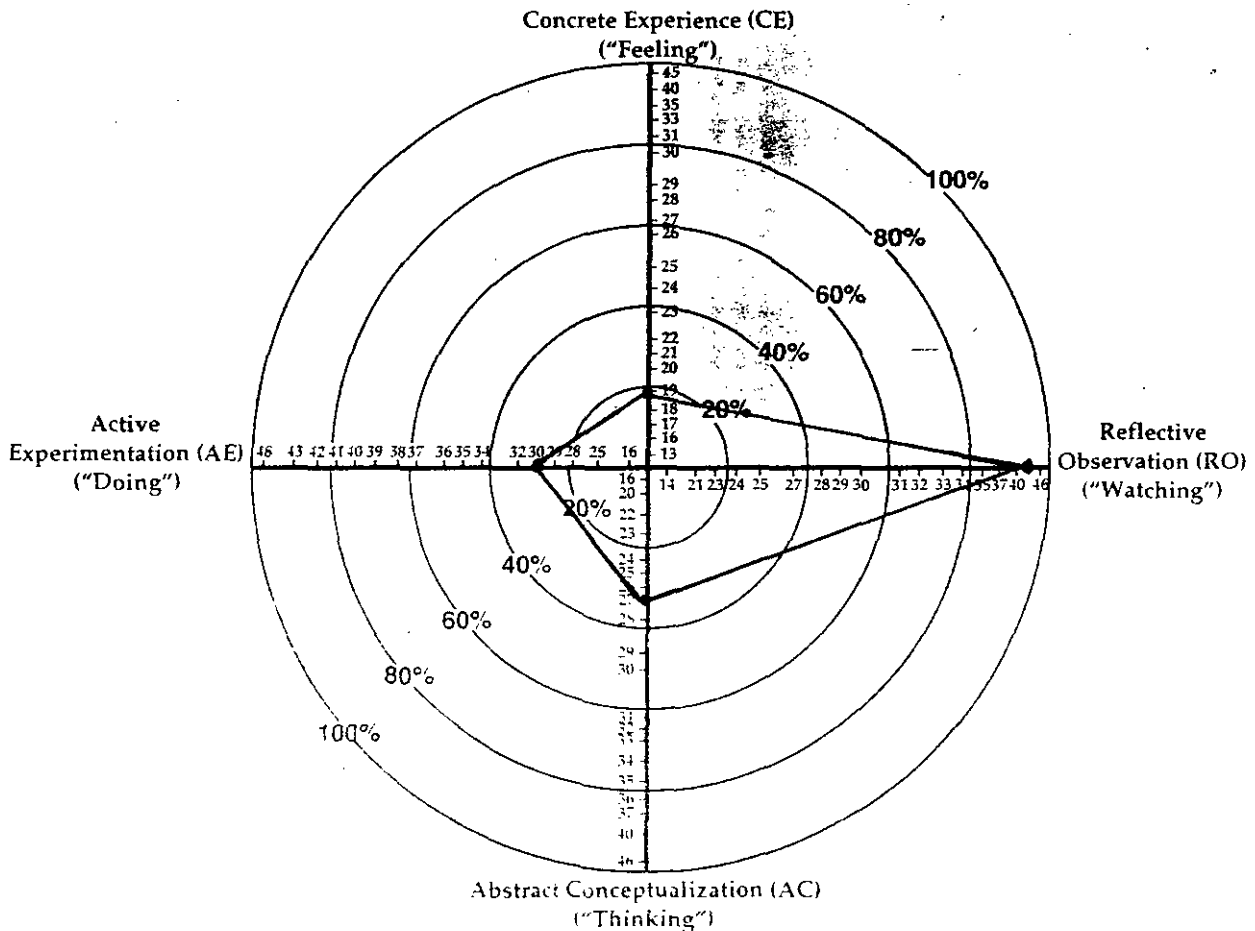
<div>La</div> <div>Pl</div> <div>SeRb</div> <div>ACCOMMODATOR</div> <div>Rd</div>	<div>DIVERGER</div>
<div>Ky</div> <div>CONVERGER</div> <div>Sh</div>	<div>ASSIMILATOR</div>

The Cycle of Learning

Four columns that you have just totaled relate to the four stages in the Cycle of Learning from Experience. There are four learning modes in this cycle: Concrete Experience (CE), Reflective Observation (RO), Abstract Conceptualization (AC), and Active Experimentation (AE). Enter your total scores from each column:

Column 1 (CE): **19** Column 2 (RO): **44** Column 3 (AC): **27** Column 4 (AE): **30**

Use the diagram below, put a dot on each of the lines to correspond with your CE, RO, AC, and AE scores. Then connect the dots with a line so that you get a "kite-like" shape. The shape and placement of this kite will show you which learning modes you tend to use most and which you use least.



The LSI is a simple test that helps you understand your strengths and weaknesses as a learner. It measures how much you rely on four different learning modes that are part of a four-stage cycle of learning. Different learners start at different places in this cycle. Effective learning uses each stage. You can see by the shape of your profile (above) which of the four learning modes you tend to prefer in a learning situation.¹

On the next page are explanations of the different learning modes.

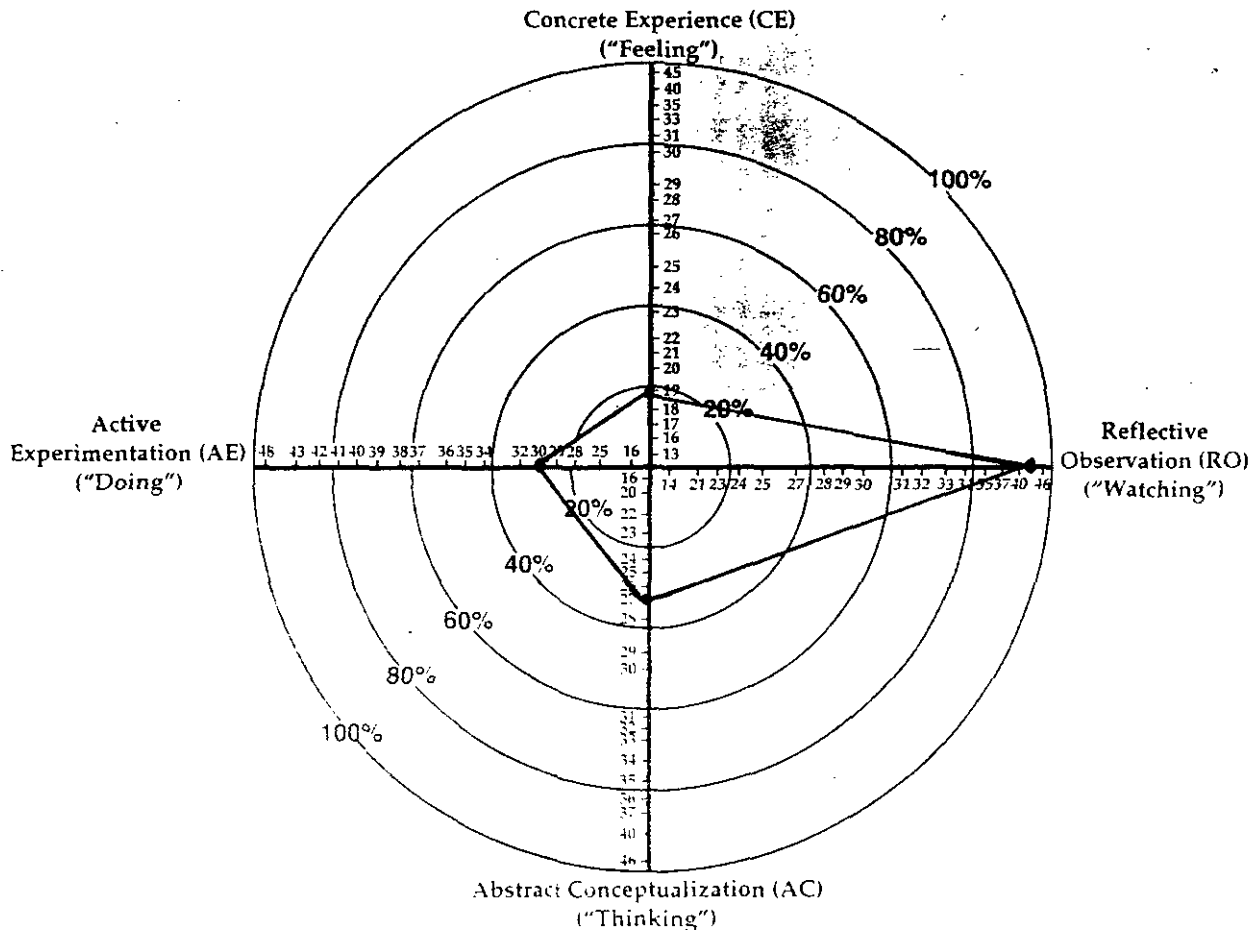
One way to understand the meaning of your LSI scores better is to compare them with the scores of others. The profile above gives norms on the four basic scales (CE, RO, AC, AE) for 1,446 adults ranging from 18 to 60 years of age. The sample group contained slightly more women than men, with an average of two years beyond high school in formal education. A wide range of occupations and educational backgrounds is represented. The raw scores for each of the four basic scales are listed on the crossed lines of the target. The concentric circles on the target represent percentile scores for the normative group. In comparison to the normative group, the shape of your profile indicates which of the four basic modes you tend to emphasize most and which you emphasize least.

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Learning styles	Activities				Task					Task					Final Task	Final Task
	1	2	3	4		1	2	3	4		1	2	3	4		
Accommodators																
Divergers																
Assimilators																
Converger																
					Key Skills					Key Skills					Key Skills	Key Skills

Modality will be achieved through careful use of the Key skills

Each Activity must be sufficiently open to allow the student to exercise any of the learning styles
An overall balance is strived for before a task
These will be shared learning and assessment

Tasks will be designed to use more than one learning style.
In the final unit tasks, or at a desired point, the task will bring use as many learning styles as possible.

Questions relating to tasks undertaken in the Marketing assignment

1. Who is doing what in the team?

Richard

Paul

Steve

Rob

Kerry

Lisa

Sarah

Appendix 14

2. What tasks are you undertaking? (relate to 1-14)
and how are you approaching each aspect of the work?

3. Who are you working with?

4. Perceived problems with:
Understanding what is required

Aspects of the work

Working with others

What are you finding most difficult about the task

What are you finding easiest?

Other things?

Business Culture: Questionnaire:

Interviewer RH

Interviewee, organisation

Location and date

Q1 What do you understand by the terms 'Business culture' and/or 'Business environment'?

Q2 Brief description of company and office-type organisation. Might be necessary to limit this to a department. (size, management structure, teams, ages working together, geography of the department etc.)

Q3 What factors have created the environment that the 'operatives', supervisors and managers [define as appropriate] work in. (Historical accident, planned, some of each, constraints in terms of geography etc.)

Q4 Positive aspects of this environment/culture (Please answer in terms of geography, ethos, systems, protocols, procedures etc. in fact any way that seems appropriate.

What is it about this environment/culture that you see as conducive to:

⇒ Good management (Bus U11.1)
(you may wish to define this)

⇒ Motivation (Bus U11.1), (Bus U11.2)
(Maslow, job satisfaction, challenge, social contact, motivators, rewards, money, promotion, training, career development)

⇒ Gaining employee cooperation (Bus U4.1)
(Representation, consultation, teamworking, employee share ownership, quality circles, job security)

⇒ Developing the individual's skills (Bus U11.2)

⇒ Developing teamwork (Bus U11.3)

⇒ Improving individual productivity (Bus U11.2)

⇒ Improving team productivity (Bus U11.2), (Bus U11.3)

⇒ Responding to the need for change (Bus U4.1), (Bus U11.1)

⇒ Effective communication (Bus U11.1)
(One to one, groups, meetings, presentation, reports, written, verbal.)

Q5 Does this organisation consider itself a 'learning organisation'? If so, how does this manifest itself in policy and practice on personal development? (Bus U4.1), (Bus U11.2)

Quality meeting schedule

This is aimed at uncovering positive and negative aspects of the working environment.
To try and make the culture as business orientated as possible.

- 1.0 Those Present
- 2.0 Date
- 3.0 Aspects of the work (positive)
 - 3.1 Staff comments/behaviours
 - 3.2 Aspects of way work is organised
 - 3.3 Paperwork, support documents
 - 3.4 Timings, lessons
 - 3.6 Equipment/room/atmosphere
 - 3.7 Staff attitudes
 - 3.8 Other
- 4.0 Aspects of work (negative)
 - 4.1 Staff comments/behaviours
 - 4.2 Aspects of way work is organised
 - 4.3 Paperwork, support documents
 - 4.4 Timings, lessons
 - 4.6 Equipment/room/atmosphere
 - 4.7 Staff attitudes
 - 4.8 Other

ACCOMMODATOR

Strengths Getting things done
Leadership
Risk taking

Too much Trivial improvement
Meaningless activity

Not enough Work not completed on time
Impractical plans
not directed to goals

To develop your Accommodator learning skills, practice:

Committing yourself to objectives
Seeking new opportunities
Influencing and leading others
Being personally involved
Dealing with people

DIVERGER

Strengths Imaginative ability
Understanding people
Recognising problems
Brainstorming

Too much Paralysed by alternatives
Cannot make decisions

Not enough No ideas
Cannot recognise problems
an opportunities

To develop your Accommodator learning skills, practice:

Being sensitive to people's feelings
Being sensitive to values
Listening with an open mind
Gathering information
Imagining the implications of uncertain situations

CONVERGER

Strengths Problem-solving
Decision making
Deductive reasoning
Defining problems

Too much Solving the wrong problem
Hasty decision making

Not enough Lack of focus
No shifting of ideas
Scattered thoughts

To develop your Accommodator learning skills, practice:

Creating new ways of thinking and doing
Experimenting with new ideas
Choosing the best solution
Setting goals
Making decisions

ASSIMILATOR

Strengths Planning
Creating models
Defining problems
Developing theories

Too much Castles in the air
no practical application

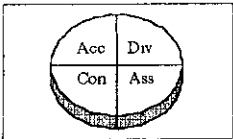
Not enough Unable to learn from mistakes
No sound basis for work
No systematic approach

To develop your Accommodator learning skills, practice:

Organising information
Building conceptual models
Testing theories and ideas
Designing experiments
Analysing quantitative data

Appendix 19

Student _____ Date _____ Task _____



<div>Planning/Doing [Acc]</div>	<div>Describing/Handling information [Div]</div>
<div>Evaluating/Choosing [Con]</div>	<div>Analysing/Comparing [Ass]</div>

Review questions

1. Map out where you think parts of this assignment fall in the chart above.
2. What aspects of this assignment do you think you are doing well on
3. What parts of the task are you finding difficult?

4.

Planning
Information seeking and handling
Coverage of Evidence indicators
Key skills, identifying and evidence
Other

GNVQ Environment:

Questionnaire to staff and students and others associated with the GNVQ room.

As part of the research I am undertaking, I am trying to ascertain how far, as a department, we have moved towards creating a 'business-like' atmosphere that encourages all of us (staff and students) to work hard and achieve more. Please consider the environment that exists in S14 at present. By this I mean, the physical layout of the room and the pattern of relationships and procedures that GNVQ operates within. When you answer the questions that follow please give as much detail and reasoning as possible.

I would be grateful if you could return these either directly to me or put them in my pigeon hole as soon as possible. Thank you for your help

Richard Hartley

1. Positive aspects:

Comment on what you feel about GNVQ that encourages people to work and achieve under the headings below:

Student/Staff Relationships

The responsibilities students are given and what the staff expect of them.

Geography/layout of the room

Facilities and resources

Organisation of work and use of the room

Other

2. Negative aspects:

Comment on what you feel about GNVQ that does not encourage people to work and achieve under the headings below:

The responsibilities (or lack of them) that students are given and what the staff expect of them.

Geography/layout of the room

Facilities and resources

Organisation of work and use of the room

Other

3. Suggest ways in which you think this 'business-like' atmosphere could be strengthened or improved.(please continue overleaf if you need more room)

Date _____

- 6 Always
5 Generally
4 Occasionally
3 Sometimes
2 Rarely
1 Never

Students

Attitude survey

- AC Sees relevance of current work
- AC Good Attendance
- AC Good punctuality
- AC Willing to take on responsibility
- AC Willing to ask for advice
- AC Willing to take the lead
- AS Takes care over work
- AS Willing to do more, stretch themselves
- AS Shows pride in their work
- AS Sees sense in keeping area safe/clean/tidy
- CO Keen to see why work done well/or badly
- CO Clarifies what to do before going too far
- DI Has positive attitude to teacher
- DI Willing to cooperate with the group
- DI Prepared to act on advice
- DI Willing to try other approaches
- DI Demonstrates creativity in tackling problems
- DI Demonstrates sensitivity
- DI Takes care over collecting/gathering information

[illegible]

Week

Learning Phase: Considerations for a week's lessons		
1 <u>What are the main concepts to introduce</u> <u>Ideas, problems to model,</u> <u>Relationships to expose</u>		
2 <u>What are the main terms to introduce:</u>		
3 <u>Ideas on how to motivate</u>		
4 <u>Mode to be used</u>	Written Numerical Verbal Pictorial Video	Keyskills addressed
5 <u>Ideas on increasing complexity</u> <u>and on novelty</u>		
6 <u>Tasks</u>	ACC DIV ASS CON	Student choices (if appl) <div></div>
7 <u>Comments on interaction of students</u> (Useful prompts, student comments, observations, difficulties, terms not understood, attitude, Individual performance etc.)		
Follow-up? Interviews Observation Relate performance to ass./task etc.		

Week

[illegible]

INFORMATION FOR STAFF

SOCIAL CONSTRUCTIVISM

1. All cognitive development takes place on a social level first. So group-work, sharing ideas and discussion actually help students develop intellectually.
2. The Zone of Proximal Development (ZPD) is the difference between what a student is capable of at their present level of cognitive ability and where they can get to with the help of a teacher or more competent peer.
3. By explaining and introducing terms; relating situations to the real world; remodelling and presenting problems in a different way; prompting and questioning; gradually handing on responsibility for learning to the student and finally, helping them to evaluate their learning experience the teacher can 'scaffold' a student across the ZPD.
4. The way in which a person's intellect develops is directly and significantly affected by the environment or culture within which learning takes place. So, if we can create a really business-like environment (culture) in GNVQ the resulting intellectual development will be 'business-like'
5. If students are going to be able to engage socially and discuss not only their ideas but also their difficulties and take responsibility for their own learning, it would be helpful if they had a common language to articulate problems and aid diagnosis. For example, a student who cannot organise the information they collect cannot explain this to the teacher or peers very easily.
6. To help staff and students identify these areas in their teaching and learning I have devised the acronym SECTRI

Styles:	Consider the students and tasks
Engagement:	The introduction of new topics, work, ideas etc.
Complicate:	Challenging the students to come to grips with the work
Take Responsibility	Get the students to take on responsibility for the work
Reflection/Evaluation	Get the students to discuss their success and failures
Improvements	Noting down strategies to improve (and act on)
7. The common language I intend to use is that of learning styles. It is a simple but elegant explanation of why we find some activities easier or more difficult than others. Effectively, there are four learning styles that can easily be related to students and the structure of tasks we give them. By using the terminology provided by this theory and the fact that it relates perfectly to the grading themes it should be possible to give the students a common language for their problems and strategies to solve those problems
8. Neither the idea of the ZPD nor learning styles suggest a static level of intelligence or understanding. Both are regarded as dynamic and offer a way for any student to develop to higher levels of intellectual ability and a strategy for any teacher to help them.

LEARNING STYLES AND HOW THEY WILL FIT INTO TEACHING AND ASSESSING.

Kolb's learning styles are a useful way of making staff and students see how their work and motivation is affected by the sorts of tasks required of them.

The Learning Styles Inventory (LSI) is a series of short questions that brings out the sort of style a student is most at home with at that time. Applying this during the induction and referring to it will help to tailor the work more closely to the student's needs. The learning styles sheet offers a quick reference for several things.

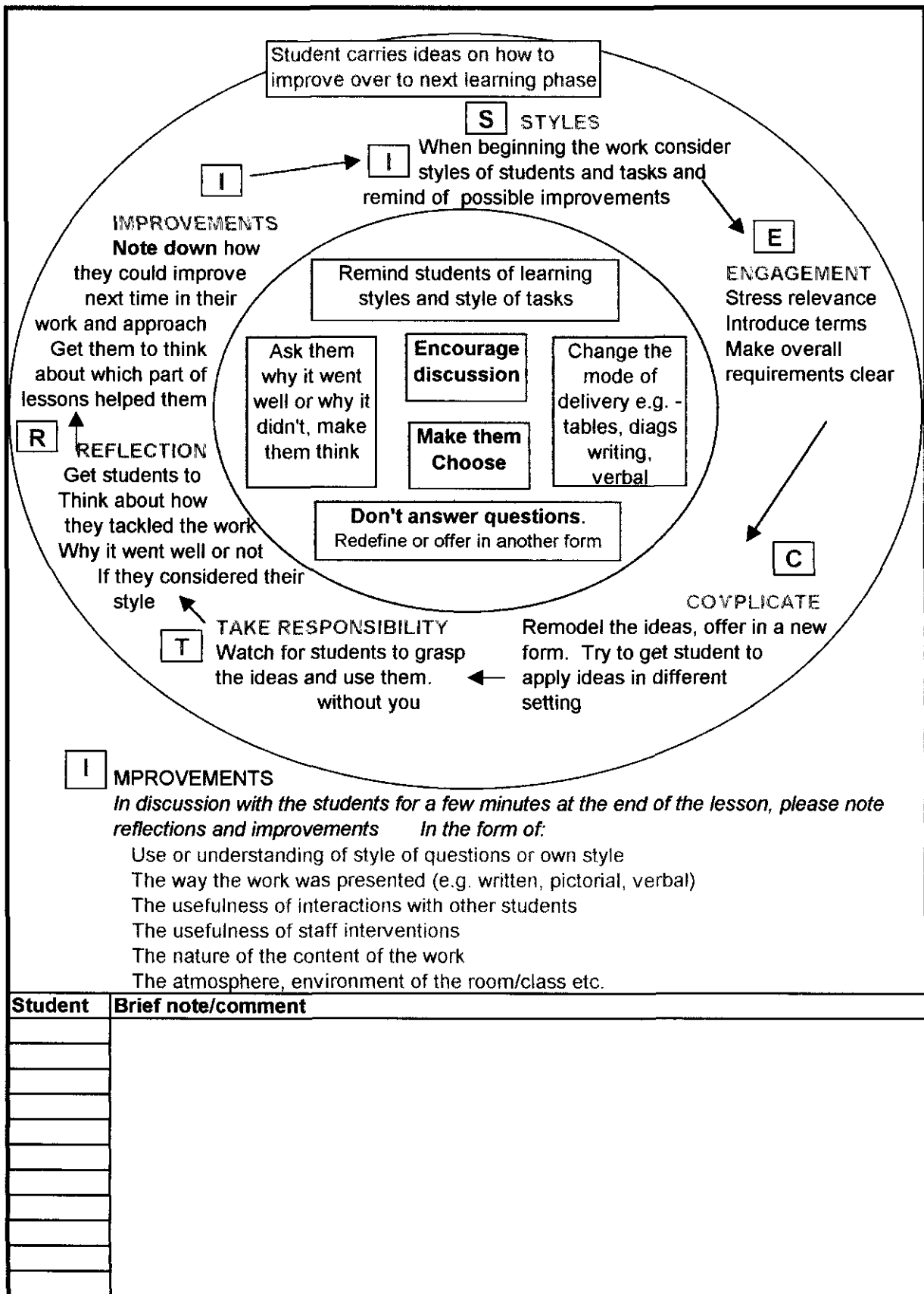
1. The student characteristics of a particular learning style.
2. The way a task can be identified as leaning towards a particular style.
3. The way the grading criteria are related to the learning styles (shown in the centre).
4. A space to plot the learning styles of your students.

A Teaching and learning phase is the whole loop of the SECTRI mentioned above. A phase may be anything from a lesson to a series of lessons but the aim of that phase will be to help students master a skill or understand aspects of the course. Do not feel that the students must evaluate at the end of each lesson. The idea is that we have a clear understanding of what we want students to do and that at the end of the time it takes to cover the work that the students are given the opportunity to see what things they found difficult, why they found some things easy and how they can use this understanding to improve in a later learning phase. The whole element is in itself a teaching and learning phase with the assignment as the final outcome. I have identified aspects of this affected by learning style and also included in the new assignment booklet a few questions and prompts to aid reflection and evaluation.

Checklists and prompts are all include on the sheet explaining SECTRI. The outer circle is a reminder of what the teaching and learning phase is all about and the inner circle is a reminder of the most useful strategies. I have kept it as brief as possible. Where possible encourage the students to make choices, even change the approach or mode to stretch themselves. Flexible learning is only achieved if the students learn to develop all the learning styles. If at all possible get them to choose between tasks of varying styles. Get them to try and identify the style of the task they are attempting. It doesn't really matter if they (or you) get a question in the wrong style. The fact that they will have to think or talk about it will help develop them.

Student's recording. I would like, at the end of Teaching and Learning Phase for the students to record their reflections and improvement suggestions on a prepared form. This is designed to encourage consideration of learning style, mode and their own response. It will also relate to the evaluation questions in the assignment booklet.







ASSIGNMENT GRADING AND KEY SKILLS

The pages of this booklet can be found on 'P' drive

IDENT	UNIT	DATE DUE IN
UNIT MANAGER	ELEMENT(S)	DATE RETURNED

Is the assignment handed in on time?		Frontsheet updated?	
Is all the evidence indicator covered?		Key Skills updated	
Are key skills been entered below?		Unit Manager's initials	
Is there an appendix with supplementary evidence?		Student's initials	

Learning themes	Assessor's interim grade	Internal Verifier's grade
Planning	P M D	P M D
Information seeking and Handling	P M D	P M D
Organisation	P M D	P M D
Quality of outcomes	P M D	P M D
Referred back to student as incomplete	No Grade	

EVIDENCE INDICATOR(S) Nature and location of Evidence

Write, type or stick in the Evidence Indicator from the Specifications

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Key skills coverage by evidence indicator

EV	Evidence Indicator	Achieved	Evidence Indicator	Achieved	Evidence Indicator	Achieved	Evidence Indicator	Achieved	Evidence Indicator	Achieved
EV										

Key skills comment if applicable

Leisure & Tourism Advanced GNVQ

Unit 1

Investigating the leisure and tourism industries

Element 1

Investigate the structure and scale of the UK leisure and tourism industries



Assignment

You must complete a report on the structure and scale of the UK leisure and tourist industries

The Report must give a broad description of :

- The structure of the UK leisure and recreation industry, with examples and the structure of the UK travel and tourism industry, with examples and assess the scale of the industries

Diverger task

Key Skills

Approaches, ideas

- Explain the role of the public, private and voluntary sector in

Assimilator
task

Key skills

Approaches, ideas

- Finally, the report should include findings from an investigation into the relationship between the three sectors

Converger
task

Key skills

Approaches, ideas

Terms: Travel agencies, tour operators, principals, public, private, voluntary.

<p>Context P1 Friday 8/10/99 Students on task</p> <p>T → (M)</p>	<p>Atmosphere 3 groups - one direct teaching two on task</p> <p>Nice wacky atmosphere</p>		
<p>First quarter 9-15 (G abby) (F) → (C) → 4 S [T]² [TsJ]² (M) → J³ check plan! [T] → J → (M)² S + Ts [T] [J] S + J + T + Ts² S → (M)²</p>	<p>Second quarter 15 - 25 Ts + S¹ S + J³ T → (M) (M) → T on examples. ← F, C returned 4 (M) ↔ C ← cross flow of ideas! Ts + S² + C + J + T² [J]¹ S → X - 5 Ts + S + C³ Solved Problem. [S] → ← [S]¹ 2 [Ts] [J] [T] ← C [F]¹ 4 J → (M)² [T]² [X-T]¹ 4</p>	<p>Third quarter 25 4 40 [X]¹ [T]³ net F + C² discussing and acting. [X]¹ 5 mins. F + C² 1 F + S² 1 S → (M) [X]¹ 4 XXXXXXXXXX</p>	<p>Fourth quarter 40 55 [X]¹ 4 [T]² [F]³ 3 S + Ts² F → (M) re knowledge of physics 6</p>

<p>Code Manager directed (M) → Whole group X Use of communications (S) 1, 2, 3. Use of technology [S] 1, 2, 3. Student interaction with M S + (M) 1, 2, 3. Student interaction with O S + (O)</p>	<p>Students working on own [S] 1, 2, 3. Students interacting S + S 1, 2, 3. Students taking responsibility ⇒ 1, 2. Movement with purpose ← S → In and out Decision ◇ Not on task (underscore) <u>S</u></p>
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GNVQ Environment:

Questionnaire to staff and students and others associated with the GNVQ room.

As part of the research I am undertaking, I am trying to ascertain how far, as a department, we have moved towards creating a 'business-like' atmosphere that encourages all of us (staff and students) to work hard and achieve more. Please consider the environment that exists in S14 at present. By this I mean, the physical layout of the room and the pattern of relationships and procedures that GNVQ operates within. When you answer the questions that follow please give as much detail and reasoning as possible.

I would be grateful if you could return these either directly to me or put them in my pigeon hole as soon as possible. Thank you for your help

Richard Hartley

1. Positive aspects:

Comment on what you feel about GNVQ that encourages people to work and achieve under the headings below:

Student/Staff Relationships

The responsibilities students are given and what the staff expect of them.

Geography/layout of the room

Facilities and resources

Organisation of work and use of the room

Other

2. Negative aspects:

Comment on what you feel about GNVQ that does not encourage people to work and achieve under the headings below:

The responsibilities (or lack of them) that students are given and what the staff expect of them.

Geography/layout of the room

Facilities and resources

Organisation of work and use of the room

Other

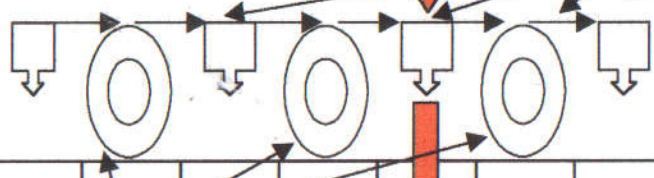
3. Suggest ways in which you think this 'business-like' atmosphere could be strengthened or improved.(please continue overleaf if you need more room)

1. Data from students interim recording and evaluations, taken forward, can be related to their achievement using this grid. Aspects of teaching can also be looked at.

2. Activities during the assignment completion phase of the work can be related to the final achievement and understanding of their own learning styles

Teaching and Learning phase of the work.

Analysis of activities during assignment period of the work

Teaching and Learning phase of the work				Analysis of activities during assignment period of the work															Achievement	
				Manager directed	S/int Discuss	S/int share ideas/res	S/int collaborate	Slow Non tech	Slow Tech	Slow problem solve	S+M ask help	S+M discuss	S+O suggest	Make decisions	Purposeful movement	Resp - work for others	Resp Organise others	Not on task		
'SECTRI' structure of lessons																			Planning/ P/org, [co,ac]	
																				Research s/rel [div]
																			QofO Synth non-tec [ass]	
																			QofO Terms non-tec [ass]	
																			KS comms [con]	
																			KS ICT [con]	
																			Understand own L/style	
																			Aspects of evaluation [con]	
																			Improvements, etc taken forward	
																			Relevant tests W/Experience reports Reports	
Attitude surveys, attendance, etc				Others views of the culture and environment				Student evaluations Quality meetings												